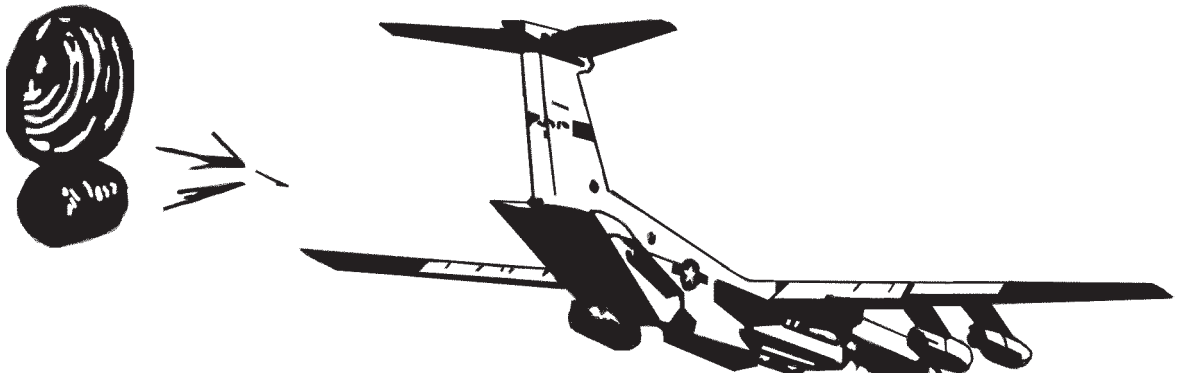

AIRDROP OF SUPPLIES AND EQUIPMENT:

RIGGING FORWARD AREA REFUELING EQUIPMENT (FARE)

HEADQUARTERS
DEPARTMENT OF THE ARMY
DEPARTMENT OF THE AIR FORCE

CHANGE
No. 4

HEADQUARTERS
DEPARTMENT OF THE ARMY
DEPARTMENT OF THE AIR FORCE
Washington, DC, 19 May 1997

AIRDROP OF SUPPLIES AND EQUIPMENT
RIGGING FORWARD AREA REFUELING EQUIPMENT (FARE)

This change adds the procedures for rigging the 4-inch, 350-GPM wheel-mounted POL pumping assembly with filter/separator.

FM 10-537/TO 13C7-1-19, 28 February 1983, is changed as follows:

1. New or changed material is identified by a vertical bar in the margin opposite the changed material.

2. File this transmittal sheet in front of the publication for reference purposes.

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v and vi	v through vii
	10-1 through 10-31
References -1	References -1

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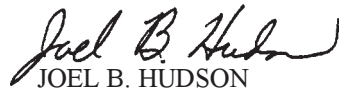

JOEL B. HUDSON
Administrative Assistant to
Secretary of the Army

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CHANGE
NO. 3

HEADQUARTERS
DEPARTMENT OF THE ARMY
DEPARTMENT OF THE AIR FORCE
Washington, DC, 10 March 1993

AIRDROP OF SUPPLIES AND EQUIPMENT

RIGGING FORWARD AREA REFUELING EQUIPMENT (FARE)

This change adds the procedures for rigging the FARE with seven 500-gallon fuel drums on a type V platform for low-velocity and LAPE airdrops.

FM 10-537/TO 13C7-1-19, 28 February 1983, is changed as follows:

1. New or changed material is identified by a vertical bar in the margin opposite the changed material.

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v	v and vi
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	9-1 through 9-49

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CHANGE
NO 2

HEADQUARTERS
DEPARTMENTS OF THE ARMY
AND THE AIR FORCE
Washington, DC, 16 September 1991

AIRDROP OF SUPPLIES AND EQUIPMENT: RIGGING FORWARD AREA REFUELING EQUIPMENT (FARE)

This change adds the procedures for rigging the FARE with two, three, and four 500-gallon fuel drums on a type V platform for low-velocity airdrop. It also adds the procedures for rigging the FARE in an M998, 1 1/4-ton truck (HMMWV) on the type V platform for low-velocity airdrop.

FM 10-537/TO 13C7-1-19, 28 February 1983, is changed as follows:

1. New or changed material is identified by a vertical bar in the margin opposite the changed material.

2. Remove old pages and insert new pages as indicated below:

Remove pages	Insert pages
iii through v	iii through v
	6-1 through 6-65
	7-1 through 7-85
	8-1 through 8-9
Glossary-1	Glossary-1
Appendix-1	References-1

3. File this transmittal sheet in front of the publication for reference purposes.

CHANGE
NO 1

HEADQUARTERS
DEPARTMENTS OF THE ARMY
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Washington, DC, 29 May 1987

AIRDROP OF SUPPLIES AND EQUIPMENT: RIGGING FORWARD AREA REFUELING EQUIPMENT (FARE)

FM 10-537/TO 13C7-1-19, 28 February 1983, is changed as follows:

1. New or changed material is identified by a vertical bar in the margin opposite the changed material.

2. Remove old pages and insert new pages as indicated below:

Remove pages	Insert pages
i and ii	i and ii
1-1	1-1
2-7 and 2-8	2-7 and 2-8
4-1 and 4-2	4-1 and 4-2
4-17 through 4-20	4-17 through 4-20
5-1 through 5-4	5-1 through 5-4
5-9 and 5-10	5-9 and 5-10
5-17 through 5-20	5-17 through 5-20
5-27 through 5-30	5-27 through 5-30
Appendix A	Appendix A

3. File this transmittal sheet in front of the publication for reference purposes.

Field Manual
No 10-537
Technical Order
No 13C7-1-19

HEADQUARTERS
DEPARTMENTS OF THE ARMY
AND THE AIR FORCE
Washington, DC, 28 February 1983

AIRDROP OF SUPPLIES AND EQUIPMENT: RIGGING FORWARD AREA REFUELING EQUIPMENT (FARE)

Table of Contents

TYPE II PROCEDURES REMOVED

PREFACE

SCOPE

This manual tells and shows how to prepare and rig the 4-inch, 350-GPM wheel-mounted POL pumping assembly with filter/separator for low-velocity airdrop. It is designed for use by all parachute riggers.

USER INFORMATION

The proponent of this publication is HQ TRADOC. You are encouraged to report any errors or omissions and to suggest ways for making this a better manual. Army personnel, send your comments on DA Form 2028 directly to:

Aerial Delivery and Field Services Department
USA Quartermaster Center and School
1010 Shop Road
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Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER 1

INTRODUCTION

1-1. Scope

This manual shows and tells how to rig the forward area refueling equipment, to include the rigging of hazardous material--gasoline, JP4 fuel, and diesel fuel. The FARE is rigged with the following:

a. M101 and M101A, 3/4-ton, two-wheel trailers for low-velocity airdrop from the C-130 and C-141 aircraft and for LAPE airdrop from the C-130 aircraft.

b. M561, 1 1/4-ton truck (Gama Goat) for low-velocity airdrop from the C-130 and C-141 aircraft and for LAPE airdrop from the C-130 aircraft.

c. Two 500-gallon collapsible fuel drums for low-velocity airdrop from the C-130 and C-141 aircraft.

d. Two, three, and four 500-gallon collapsible fuel drums for LAPE airdrop from the C-130 aircraft.

e. M101A1, 3/4-ton trailer for tandem LAPE airdrop from the C-130 aircraft.

f. Two, three, and four 500-gallon fuel drums on a type V platform for LAPE airdrop from the C-130 aircraft.

g. M998, 1 1/4-ton truck (HMMWV) on a type V platform for low-velocity airdrop from the C-130 and C-141 aircraft.

h. Seven 500-gallon fuel drums on a type V platform for low-velocity airdrop from the C-130 and C-141 aircraft and for LAPE airdrop from the C-130 aircraft.

This manual is designed for use by all parachute riggers.

1-2. Special Considerations

CAUTION: *There must be no more than 475 gallons of liquid in each drum when the drum is rigged for low-velocity airdrop and no more than 450 gallons when rigged for LAPE.*

a. When included as a part of these loads, fuel must be packaged, marked, and labeled as described in AFR 71-4/TM 38-250.

b. Each drum of fuel MUST be weighed to learn its exact weight, as the drum has no gage to measure the liquid content. For computing liquid weight per US gallon, 6 pounds are used for gasoline, 6.6 pounds for JP4 fuel, and 6.68 pounds for diesel fuel. When empty, each drum weighs 250 pounds.

CAUTION: *Because the fuel drum is flexible, it will rebound on ground impact and the lashings may be broken. This could free the drum and allow it to roll off the platform and create a possible hazard in the immediate area.*

c. A copy of this manual must be available to the joint airdrop inspectors during the before- and after-loading inspections.

1-3. User Information

The proponent of this publication is HQ TRADOC. You are encouraged to report any errors or omissions and to suggest ways for making this a better

manual. Army personnel, send your comments on DA Form 2028 directly to:

Commander
US Army Quartermaster Center and School
ATTN: ATSM-SPT-I
Fort Lee, VA 23801-5036

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CHAPTER 2

RIGGING FARE IN 3/4-TON TRAILER

2-1. Description of Load

The FARE is stowed as an accompanying load in the M101, 3/4-ton trailer.The FARE weighs 860 pounds. An additional 640 pounds may be stowed in the trailer. Except for the changes outlined in this chapter, the trailer is rigged as shown in chapter 2 of FM 10-513/TO 13C7-3-51.

Note: *The minimum and maximum accompanying load restrictions in chapter 2 of FM 10-513/TO 13C7-3-51 apply to this load.*

2-2. Stowing FARE (Low-Velocity and LAPE)

a. Preparing pump/engine assembly. Prepare the pump/engine assembly as shown in figure 2-1.

b. Stowing Components. Stow the FARE in the trailer as shown in figures 2-2 through 2-10.

2-3. Positioning Extraction Parachutes (Low-Velocity)

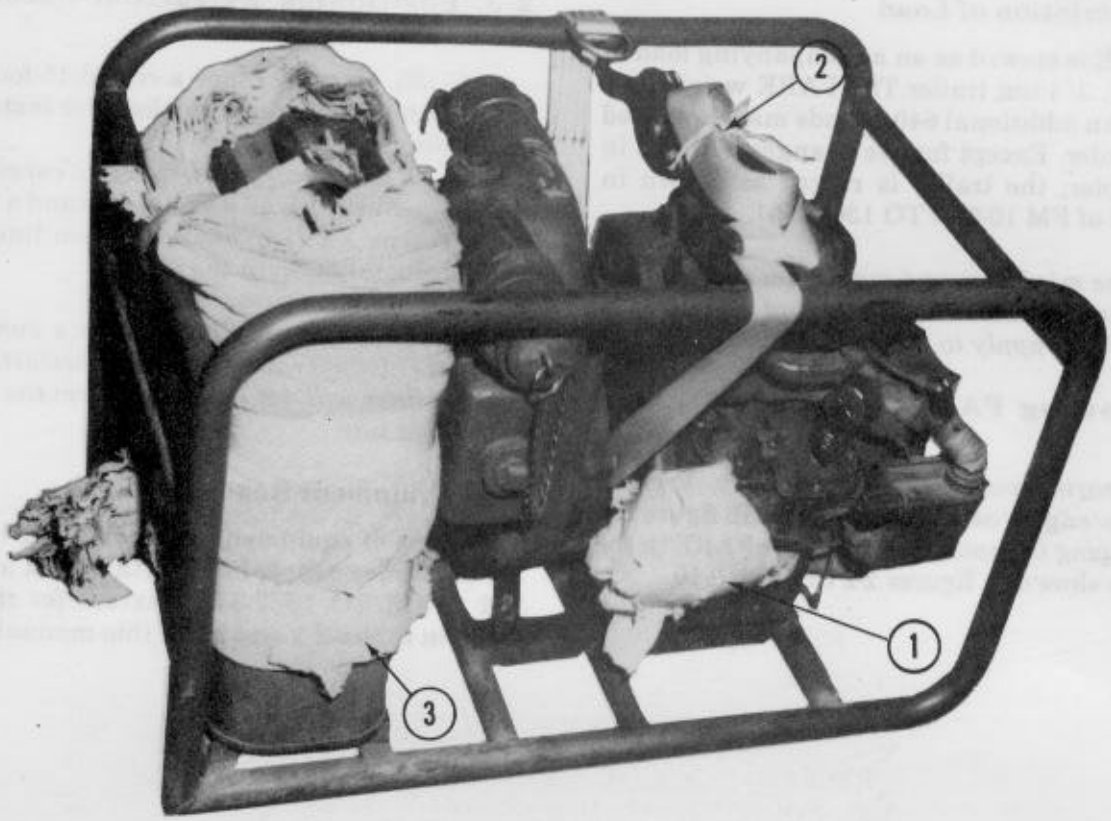
a. C-130 Aircraft. Place a reefed 15-foot cargo extraction parachute on the load for installation in the aircraft.

b. C-141B Aircraft. Place a 15-foot cargo extraction parachute with an adapter web and a 160-foot (1-loop) type XXVI nylon extraction line on the load for installation in the aircraft.

Note: *The extraction line will be a continuous 160-foot (1-loop) type XXVI nylon extraction line. Shorter lines will not be used to form the 160-foot extraction line.*

2-4. Equipment Required

The items of equipment required to rig this load are the same as those listed in tables 2-1 and 2-2 of FM 10-513/TO 13C7-3-351, except for the items listed in tables 2-1 and 2-2 of this manual.

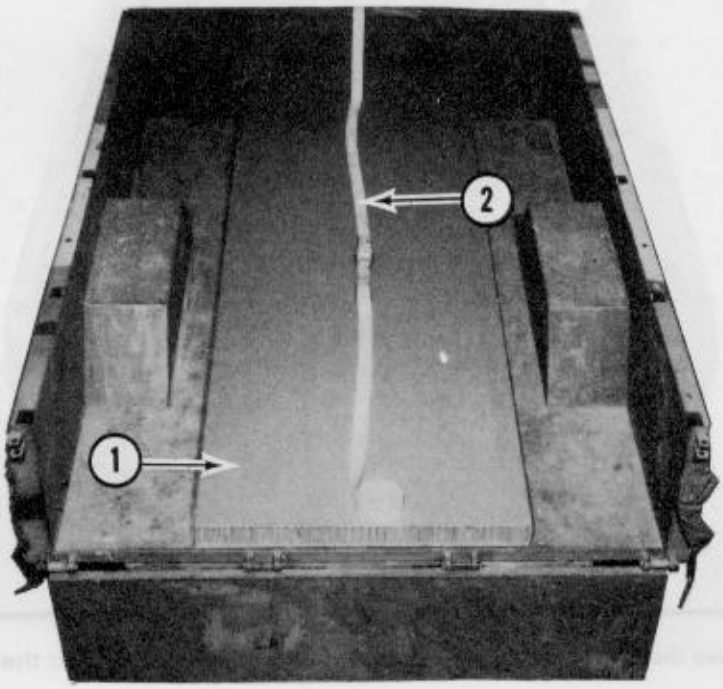


(1) Remove the fuel filter and drain out the gasoline. Replace the filter, wrap with cellulose wadding, and tape the wadding in place.

(2) Pass a 15-foot tiedown strap between the pump and engine. Fasten the tiedown strap ends together with a D-ring and load binder on top of the assembly frame.

(3) Wrap the 5-gallon fuel can with cellulose wadding and tape the wadding in place. Set the can inside the frame and secure it with the retainer strap or tie with type III nylon cord.

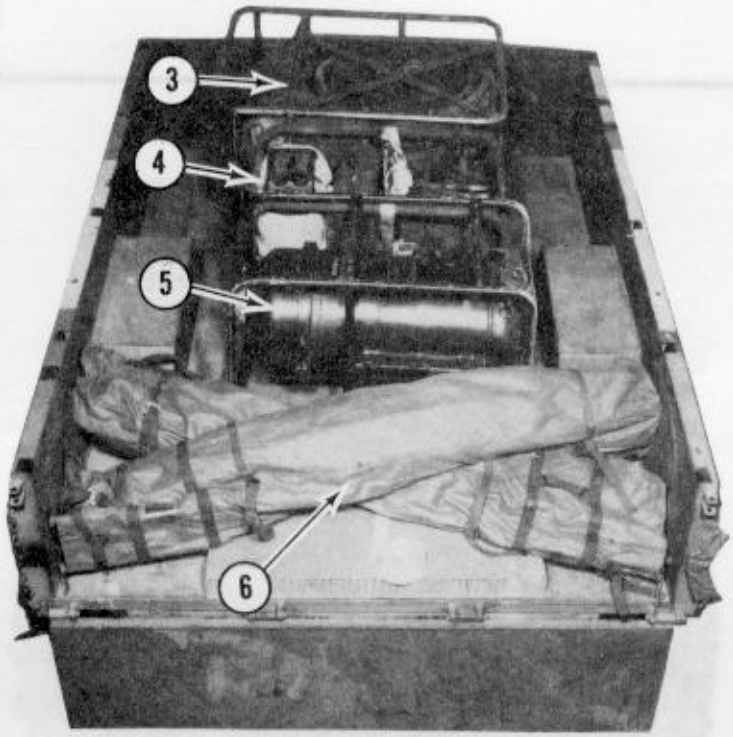
Figure 2-1. Pump/engine assembly prepared.



(1) Place a 36- by 96-inch piece of honeycomb in the center of the trailer bed.

(2) Form a 30-foot tiedown strap according to FM 10-500/TO 13C7-1-5. Pass the strap over the front wall of the trailer and down the center of the honeycomb. Leave enough strap overhanging the front of the trailer to reach the rear of the trailer.

Figure 2-2. FARE stowed (steps 1 and 2).



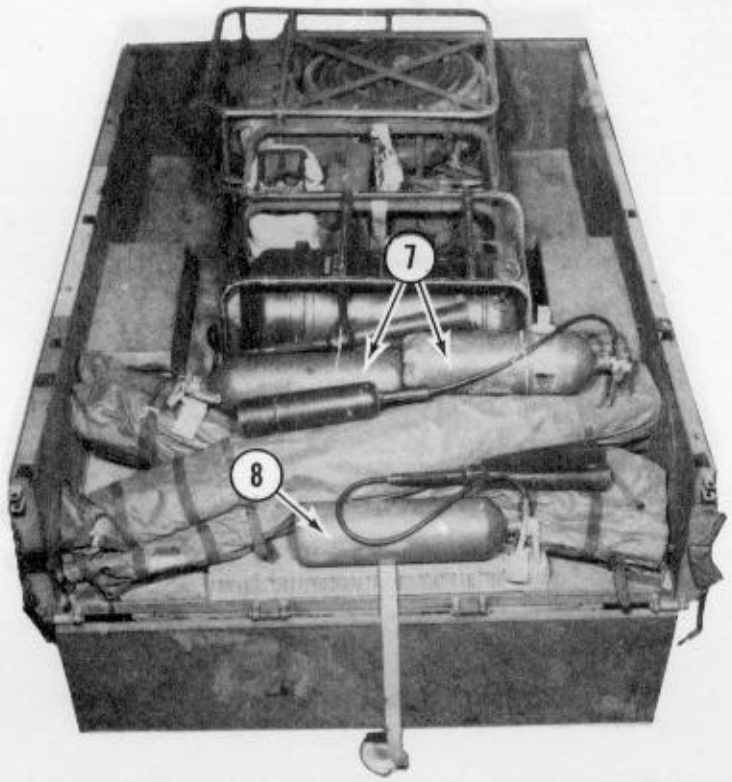
(3) Place the two discharge hose racks one on top of the other against the front wall.

(4) Place the pump/engine assembly next to the discharge hose racks.

(5) Place the filter/separator next to the pump/engine assembly.

(6) Place the two suction hose bags with grounding rods one across the other next to the filter/separator.

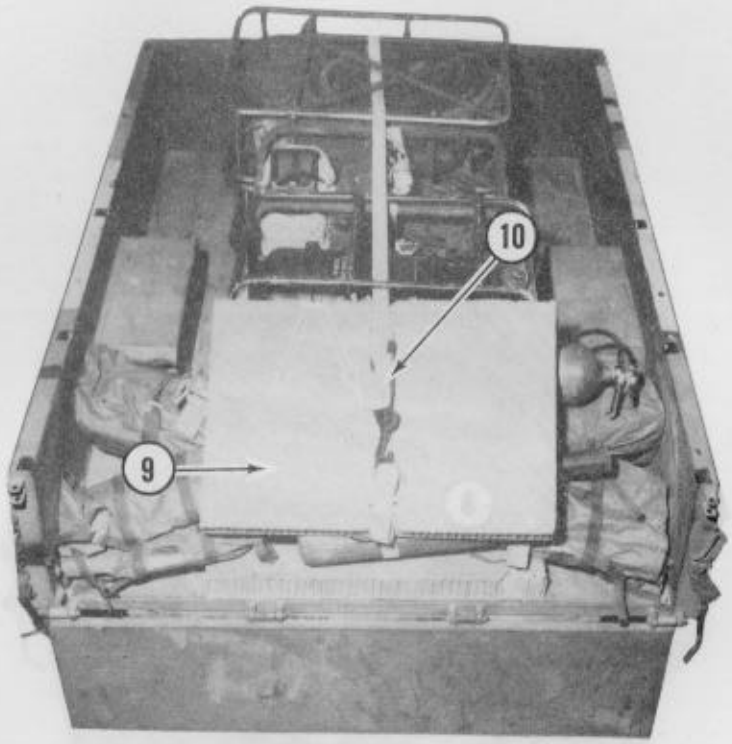
Figure 2-3. FARE stowed (steps 3 through 6).



(7) Place two fire extinguishers on top of the suction hose bags. Tie the fire extinguishers to the filter/separator with type III nylon cord.

(8) Place the third fire extinguisher behind the suction hose bags.

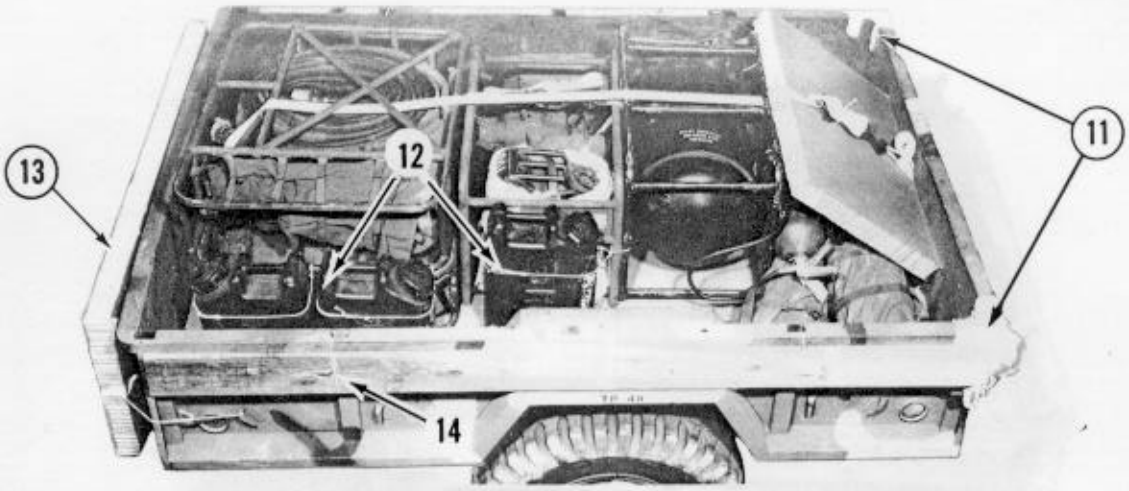
Figure 2-4. FARE stowed (steps 7 and 8).



(9) Cover the fire extinguishers with a 24- by 36-inch piece of honeycomb.

(10) Pass the tiedown strap (step 2) through the discharge hose racks, over the pump/engine assembly, and through the filter/separator frame. Fasten the ends of the strap together on top of the honeycomb with two D-rings and a load binder.

Figure 2-5. FARE stowed (steps 9 and 10).



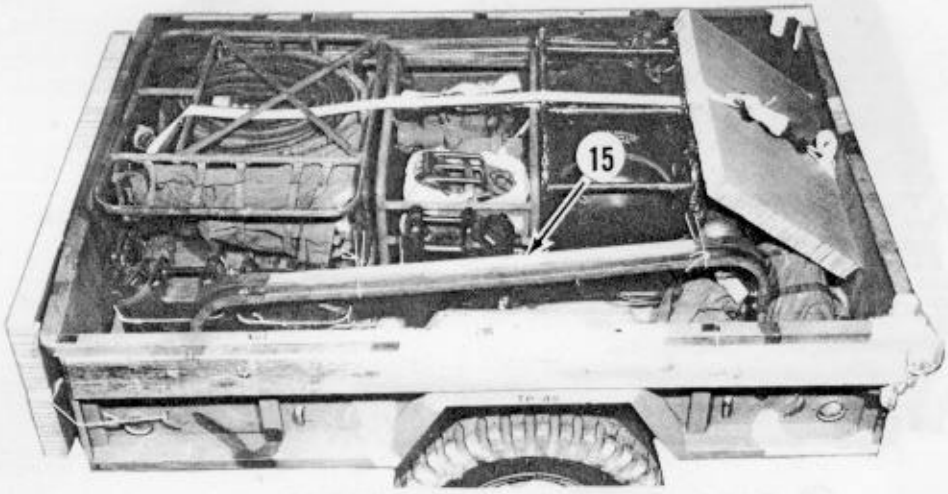
(11) Close the tailgate and tie the latches with type III nylon cord. Cover the chains and latches with cellulose wadding, and tape the wadding in place.

(12) Tie two 5-gallon fuel cans to the discharge hose racks and one fuel can to the pump/engine assembly using type III nylon cord.

(13) Pad the edges of a 24- by 60-inch piece of honeycomb and tie it on the drawbar using type III nylon cord. Tie the cord to the side paulin hooks.

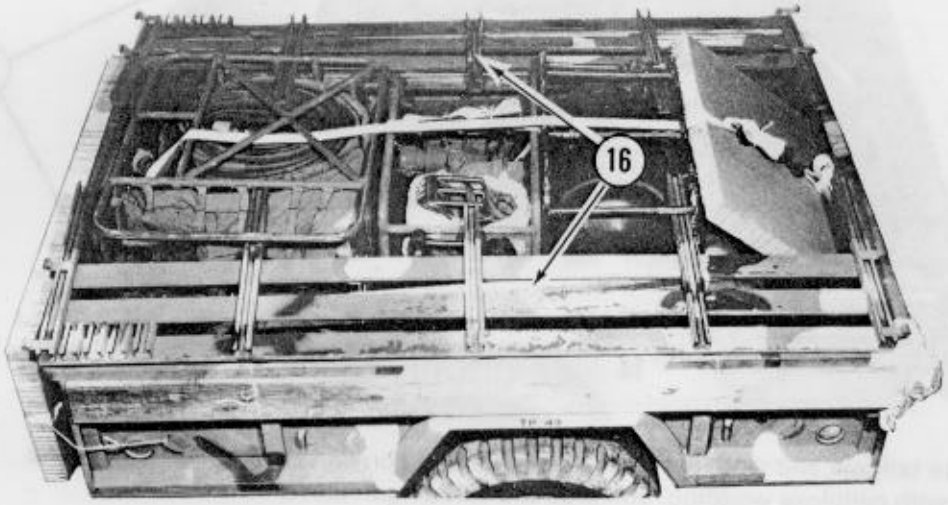
(14) Tie a 2- by 6- by 94-inch piece of lumber on each side of the trailer with type III nylon cord.

Figure 2-6. FARE stowed (steps 11 through 14).



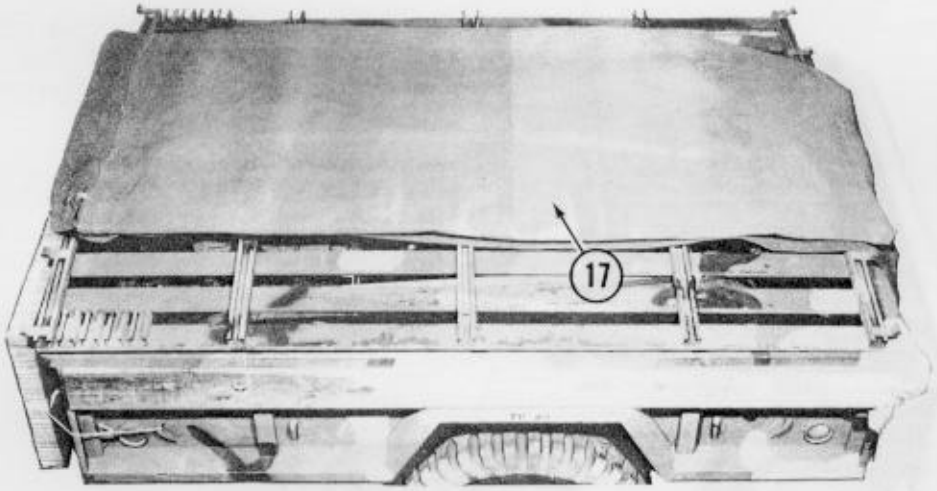
(15) Set the bows in the trailer and tie them in place with type III nylon cord.

Figure 2-7. FARE stowed (step 15).



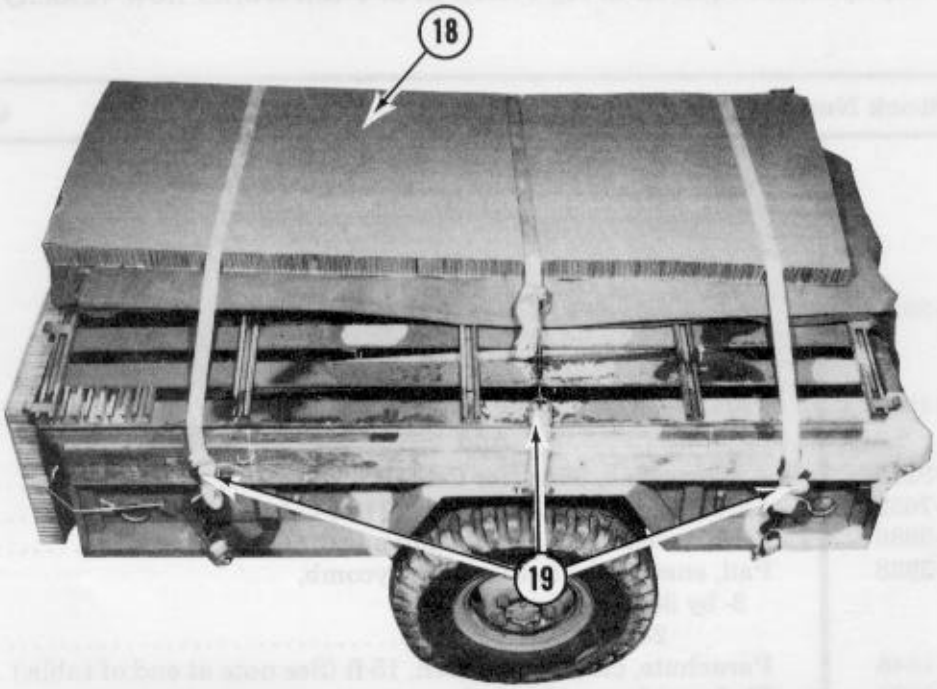
(16) Place the side and front racks in the trailer. Slide the metal braces of the side racks under convenient parts of the frames of the FARE.

Figure 2-8. FARE stowed (step 16).



(17) Fold the paulin and center it on the load.

Figure 2-9. FARE stowed (step 17).



(18) Center a 36- by 96-inch piece of honeycomb on the paulin.

(19) Use three 15-foot tiedown straps to bind the load. Pass each strap around the trailer body and frame. Position the front and rear load binders on the side of the trailer and position the middle load binder off the honeycomb.

Figure 2-10. FARE stowed (steps 18 and 19).

Table 2-1. Equipment required to rig FARE in 3/4-ton trailer (low velocity)

National Stock Number	Item	Quantity
	Delete	
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in:	1 sheet
	12- by 36-in	(11)
5530-00-123-4981	Plywood, 3/4- by 3 by 14-in	1
	Add	
1670-00-040-8215	Adapter Web, 36-in (for C-141B aircraft)	1
1670-01-107-7652	Line, extraction, 160-ft (1-loop) (for C-141B aircraft)	1
1670-00-783-5988	Link Assembly, type IV (Add one for C-141 aircraft.)	1
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in:	
	24- by 36-in	1
1670-00-052-1548	Parachute, cargo extraction, 15-ft (See note at end of table.)	1
1670-00-937-0271	Tiedown Assembly, 15-ft:	3
1670-00-937-0272	Binder, load	1
5365-00-937-0147	D-ring	3
1670-00-937-0273	Strap, tiedown, 15-ft	2

Note:

1. *C-130.* When the 15-foot extraction parachute is used on loads rigged for drop from a C-130 aircraft, it may be reefed or unreefed, depending on the final rigged weight.

2. *C-141B.* When the 15-foot extraction parachute is used on loads rigged for drop from a C-141B aircraft, it may be reefed or unreefed, depending on the final rigged weight. In addition, the parachute needs a 36-inch adapter web and a continuous 160-foot (1-loop) type XXVI nylon webbing extraction line. *Shorter lines will not be used to form the 160-foot line.*

Table 2-2. Equipment required to rig FARE in 3/4-ton trailer (LAPE)

National Stock Number	Item	Quantity
	Delete	
5530-00-128-4981	Plywood, 3/4- by 15 1/2- by 37-in	2
1670-00-937-0271	Tiedown Assembly, 15-ft:	9
1670-00-937-0272	Binder, load, 10,000-lb	(6)
5365-00-937-0147	D-ring, heavy-duty	(12)
1670-00-937-0273	Strap, 15-ft, Dacron	(12)
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in:	
	15 1/2 - by 37-in	(2)
	36- by 93-in	(2)
	Add	
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in:	
	24- by 36-in	(1)
	36- by 96-in	(2)

CHAPTER 3

RIGGING FARE IN 1 1/4-TON CARGO TRUCK

3-1. Description of Load

The FARE is stowed in the M561, 1 1/4-ton cargo truck. The FARE weighs 860 pounds. The load requires either three G-11A or G-11B cargo parachutes. Except for the changes outlined in this chapter, the truck is rigged as shown in chapter 3 of FM 10-508/TO 13C7-2-491.

3-2. Stowing FARE (Low Velocity and LAPE)

a. Preparing Pump/Engine Assembly. Prepare the pump/engine assembly as shown in figure 3-1.

b. Preparing Carrier. Prepare the carrier as shown in figure 3-2.

c. Stowing the Components. Stow the components of the FARE as shown in figures 3-3 and 3-4.

3-3. Stowing Cargo Parachutes (Low Velocity)

a. Stowage Platform. Build a parachute stowage platform in the carrier as shown in figure 3-5.

b. Cargo Parachutes. Prepare either three G-11A or G-11B cargo parachutes, adapting the procedures in FM 10-500/TO 13C7-1-5.

Note: *Use only the M-1 cargo parachute release with the G-11B cargo parachute.*

3-4. Positioning Extraction Parachute (Low Velocity)

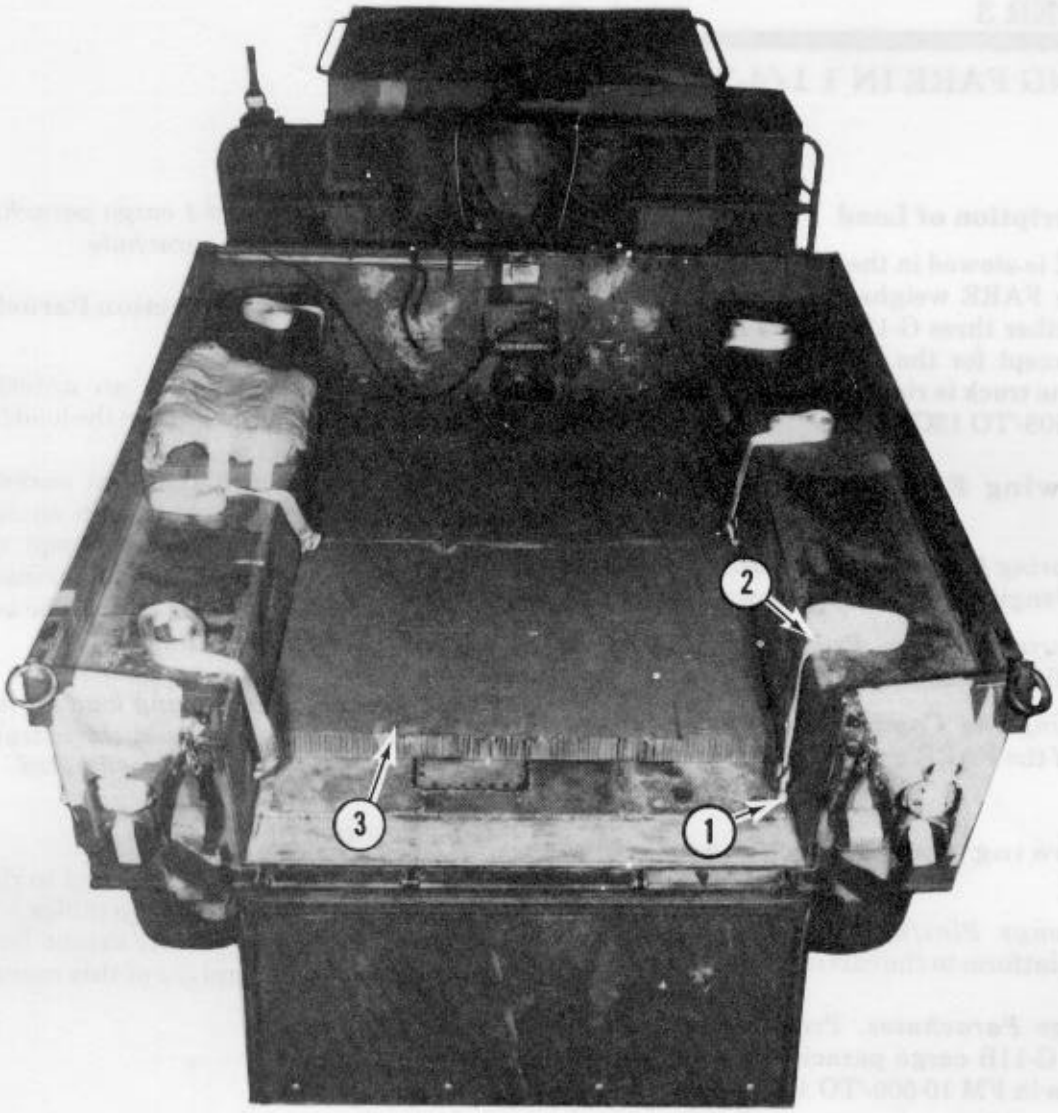
a. C-130 Aircraft. Place an unreefed 22-foot cargo extraction parachute on the load for installation in the aircraft.

b. C-141B Aircraft. Place an unreefed 15-foot cargo extraction parachute with an adapter web and a continuous 160-foot (1-loop) type XXVI nylon extraction line on the load for installation in the aircraft. *Shorter lines will not be used to form the 160-foot extraction line.*

Note: *If the accompanying load varies from the load shown in this manual the extraction parachute requirement must be computed.*

3-5. Equipment Required

The items of equipment required to rig this load are the same as those listed in tables 3-1 and 3-2 of FM 10-508/TO 13C7-2-491, except for the items listed in tables 3-1 and 3-2 of this manual.

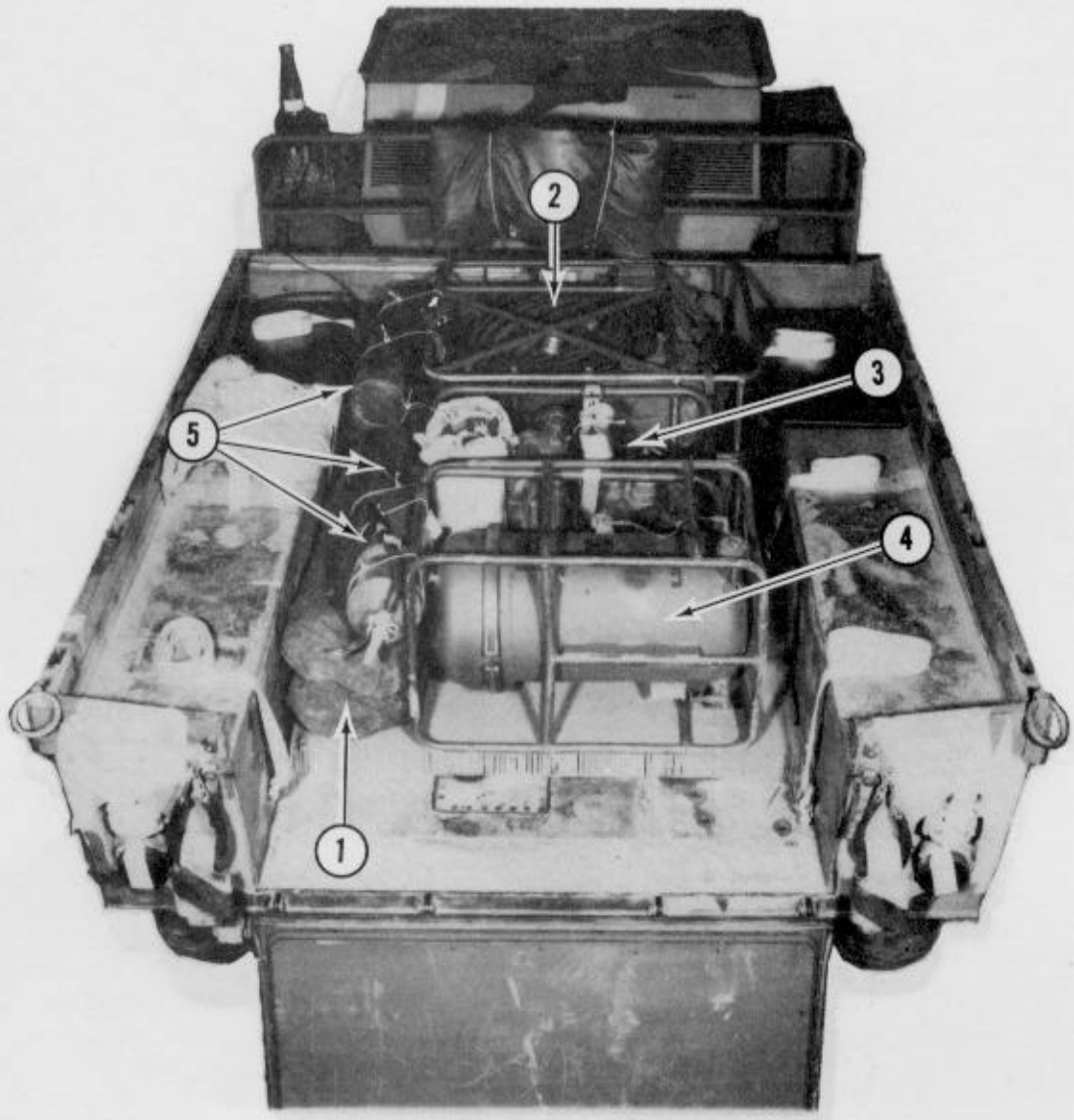


(1) Bolt six load tiedown clevises to the tiedown provisions in the carrier.

(2) Pass a 15-foot tiedown strap through each tiedown clevis, then through its own D-ring.

(3) Set two 36- by 51-inch pieces of honeycomb on the carrier floor.

Figure 3-1. Carrier prepared.



(1) Place the two suction hose bags with grounding rods on top of one another on the left side of the carrier floor.

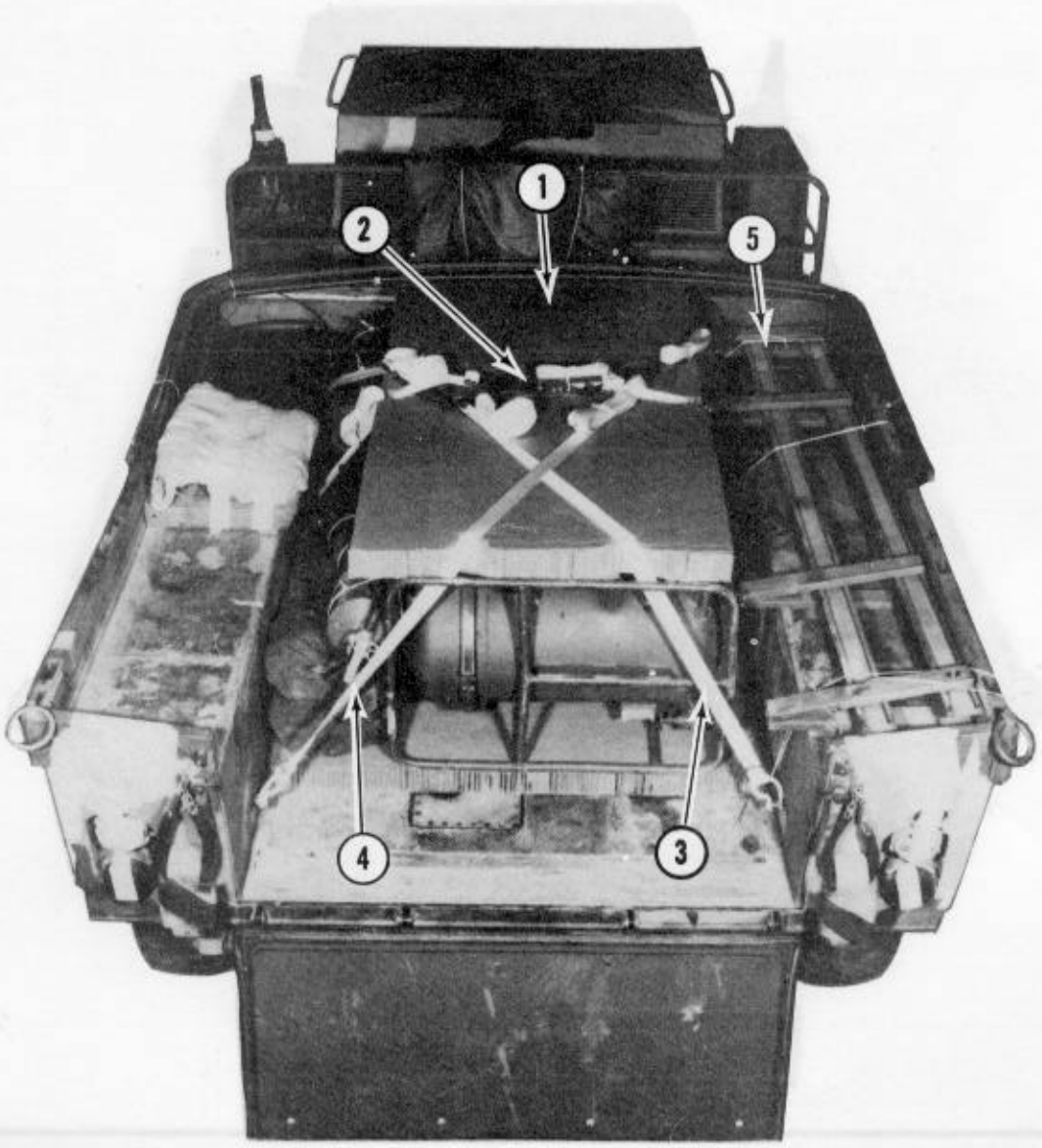
(2) Place the two discharge hose frame assemblies one on top of the other against the front wall of the carrier. Make sure the accessory fittings storage compartment on each frame assembly is fastened.

(3) Place the pump/engine assembly next to the discharge hose frame assemblies.

(4) Place the filter/separator next to the pump/engine assembly.

(5) Place the three fire extinguishers on the suction hose bags. Tie one fire extinguisher to the discharge hose frame assembly, one to the pump/engine assembly, and one to the filter/separator using two lengths of type III nylon cord on each one.

Figure 3-2. FARE stowed in carrier.



(1) Place a 36- by 72-inch piece of honeycomb on top of the frame assemblies.

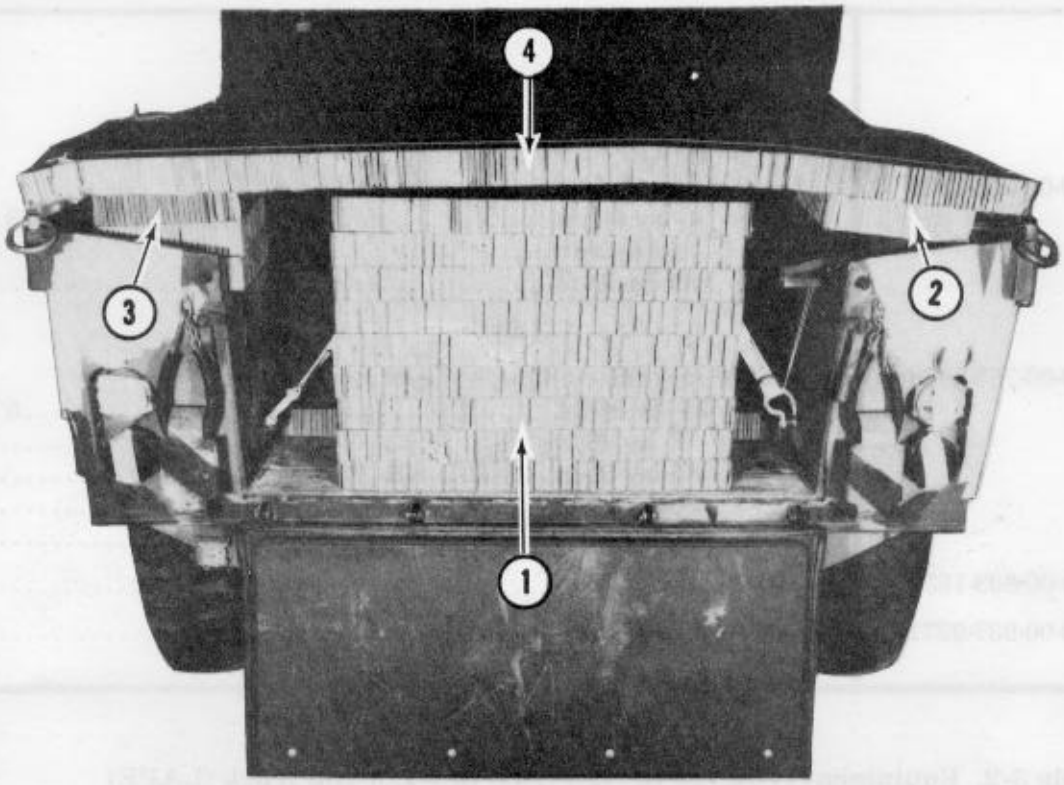
(2) Fasten the two center tiedown straps together on top of the honeycomb using two D-rings and a load binder.

(3) Pass the right rear tiedown strap under the filter/separator frame and fasten to the left front tiedown strap using two D-rings and a load binder.

(4) Pass the left rear tiedown strap under the filter/separator frame and fasten to the right front tiedown strap using two D-rings and a load binder.

(5) Place the seat backs on the right side seat and tie in place with type III nylon cord.

Figure 3-3. FARE and seat backs secured.



(1) Glue nine 12- by 36-inch pieces of honeycomb together. Place the honeycomb in the rear of the carrier.

(2) Place a 12- by 36-inch piece of honeycomb on the seat backs.

(3) Place three 12- by 36-inch pieces of honeycomb on the left seat.

(4) Place a 36- by 84-inch piece of honeycomb across the top of the three honeycomb stacks at the rear of the carrier. Tie the piece of honeycomb in place with two lengths of type III nylon cord.

Note: ***When marking the load, the rigged weight must be computed.***

3-4. Cargo Parachute stowage platform installed.

Table 3-1. Equipment required to rig FARE in 1 1/4-ton truck (low velocity)

National Stock Number	Item	Quantity
	Delete	
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	
	3- by 36- by 96-in:	3 sheets
	12- by 24-in	(16)
	36- by 78-in	(1)
	Add	
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	
	3- by 36- by 96-in:	5 sheets
	12- by 36-in	(13)
	36- by 51-in	(2)
	36- by 72-in	(1)
	36- by 84-in	(1)
1670-00-893-1631	Clevis, load tiedown	6
1670-00-937-0271	Tiedown Assembly, 15-ft	6

Table 3-2. Equipment required to rig FARE in 1 1/4-ton truck (LAPE)

National Stock Number	Item	Quantity
	Add	
1670-00-753-3928	Pad, energy-dissipating, honeycomb	
	3- by 36- by 96-in:	5 sheets
	12- by 36-in	(13)
	36- by 51-in	(2)
	36- by 72-in	(1)
	36- by 84-in	(1)
1670-00-893-1631	Clevis, load tiedown	6
1670-00-937-0271	Tiedown Assembly, 15-ft	6

CHAPTER 6

RIGGING FARE FOR LOW-VELOCITY AIRDROP ON A TYPE V PLATFORM

Section I

RIGGING FARE WITH TWO 500-GALLON FUEL DRUMS

6-1. Description of Load

The FARE with two 500-gallon fuel drums is rigged on a 12-foot, type V airdrop platform with three G-11A or two G-11B cargo parachutes. When empty, each drum weighs 250 pounds. Each drum is filled with 432 gallons of fuel. When filled, each drum is 62 inches long and 53 inches in diameter.

Note: *For drums filled with a liquid other than gasoline, use Table 6-1 to recompute the weight.*

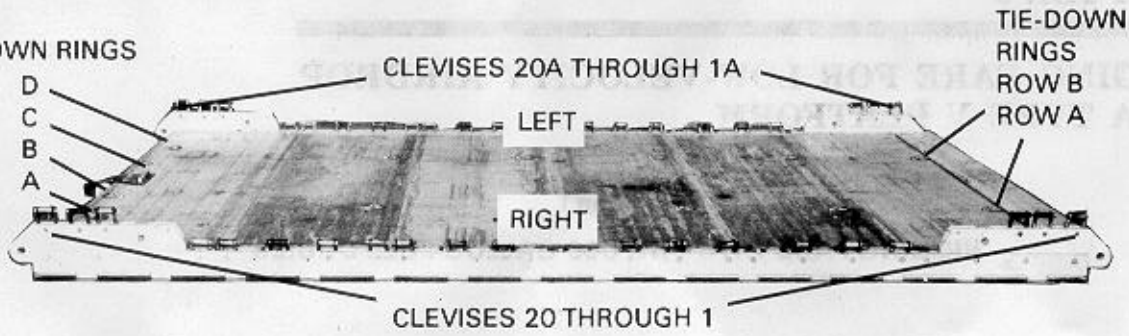
6-2. Preparing Platform

Prepare a 12-foot, type V airdrop platform using four tandem links and 40 tie-down clevises as shown in Figure 6-1.

Notes: *1. The nose bumper may or may not be installed.*
2. Measurements given in this section are from the front edge of the platform, NOT from the front edge of the nose bumper.

Table 6-1. Weight of drum when filled with fuel

Fuel	Weight Per Gallon	Total Weight of Drum with 432 Gallons of Fuel
Gasoline	6 pounds	2,842 pounds
JP-4	6.6 pounds	3,101 pounds
Diesel	6.68 pounds	3,136 pounds



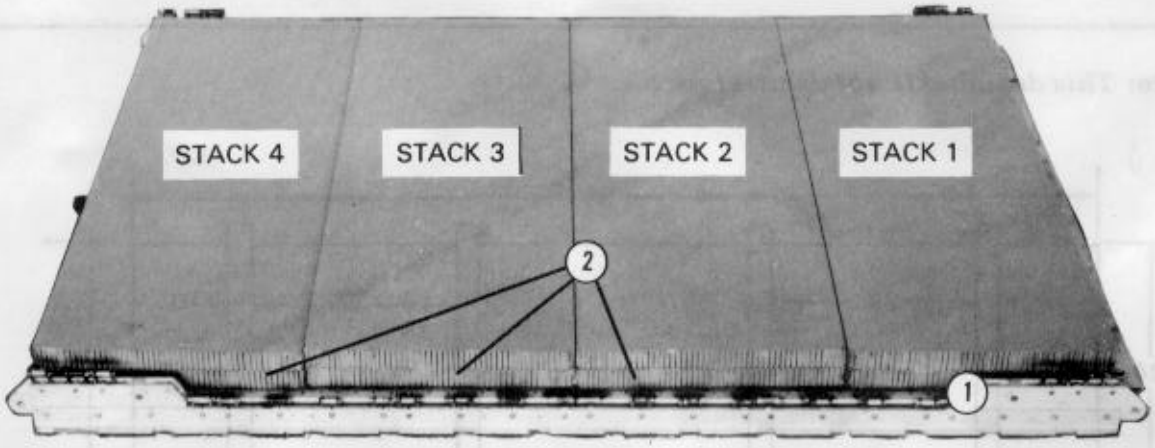
Step:

1. Inspect, or assemble and inspect, the platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
3. Install a tandem link on the rear of each side rail using holes 22, 23, and 24.
4. Install a tie-down clevis to bushings 1, 2, and 3 on each front tandem link.
5. Starting at the front of each platform side rail, install a tie-down clevis to the bushings bolted to holes 5, 6, 7, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, and 21.
6. Install a tie-down clevis to bushings 2, 3, and 4 on each rear tandem link.
7. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 20 and those bolted to the left side from 1A through 20A.
8. Starting at the front of the platform, number the two tie-down rings in the first five panels A and B from right to left. Label the four tie-down rings in the last panel A, B, C, and D from right to left. Starting with the first panel, number the tie-down rings 1 through 6.

Figure 6-1. Platform prepared

6-3. Placing Honeycomb

Place eight 96- by 36-inch pieces of honeycomb on the platform as shown in Figure 6-2.



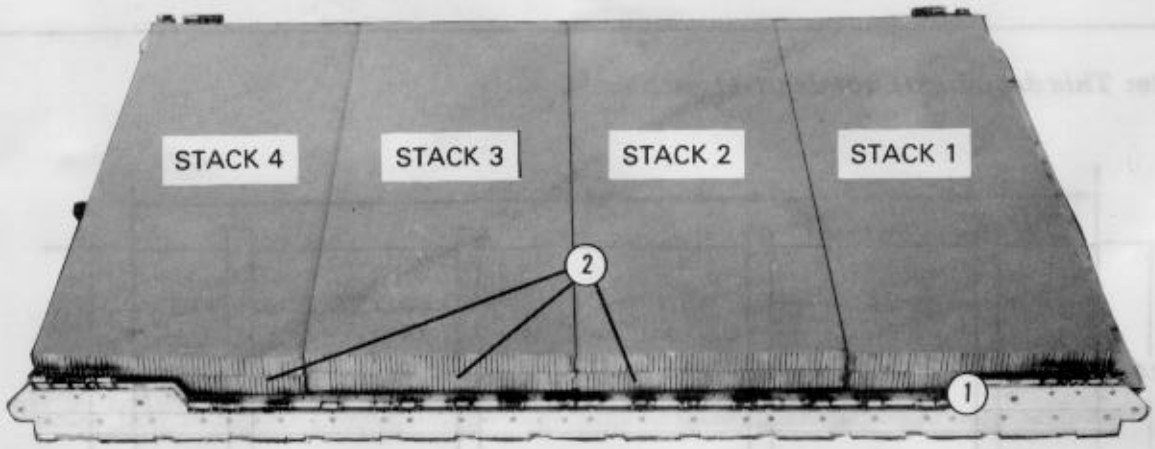
(1) Place two 96- by 36-inch pieces of honeycomb flush with the front edge of the platform.

(2) Place three more sets of 96- by 36-inch pieces of honeycomb against those placed in step 1 above.

Figure 6-2. Honeycomb placed on platform

6-3. Placing Honeycomb

Place eight 96- by 36-inch pieces of honeycomb on the platform as shown in Figure 6-2.



(1) Place two 96- by 36-inch pieces of honeycomb flush with the front edge of the platform.

(2) Place three more sets of 96- by 36-inch pieces of honeycomb against those placed in step 1 above.

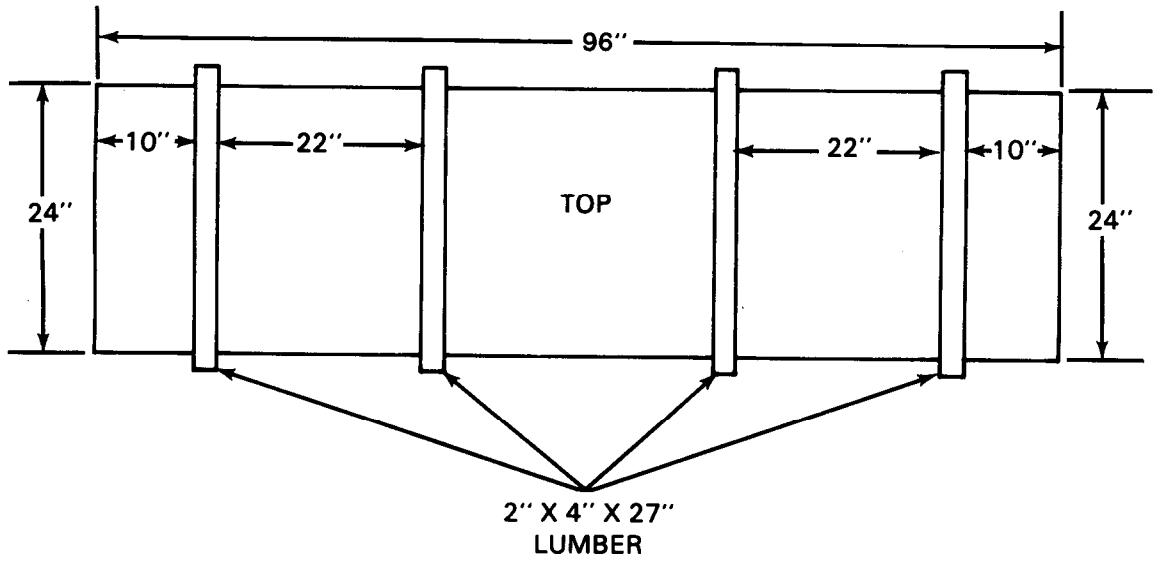
Figure 6-2. Honeycomb placed on platform

6-4. Building Container for FARE

Build the container to stow the FARE as described below.

a. Building Top. Build the top for the container as shown in Figure 6-3.

Note: ***This drawing is not drawn to scale.***



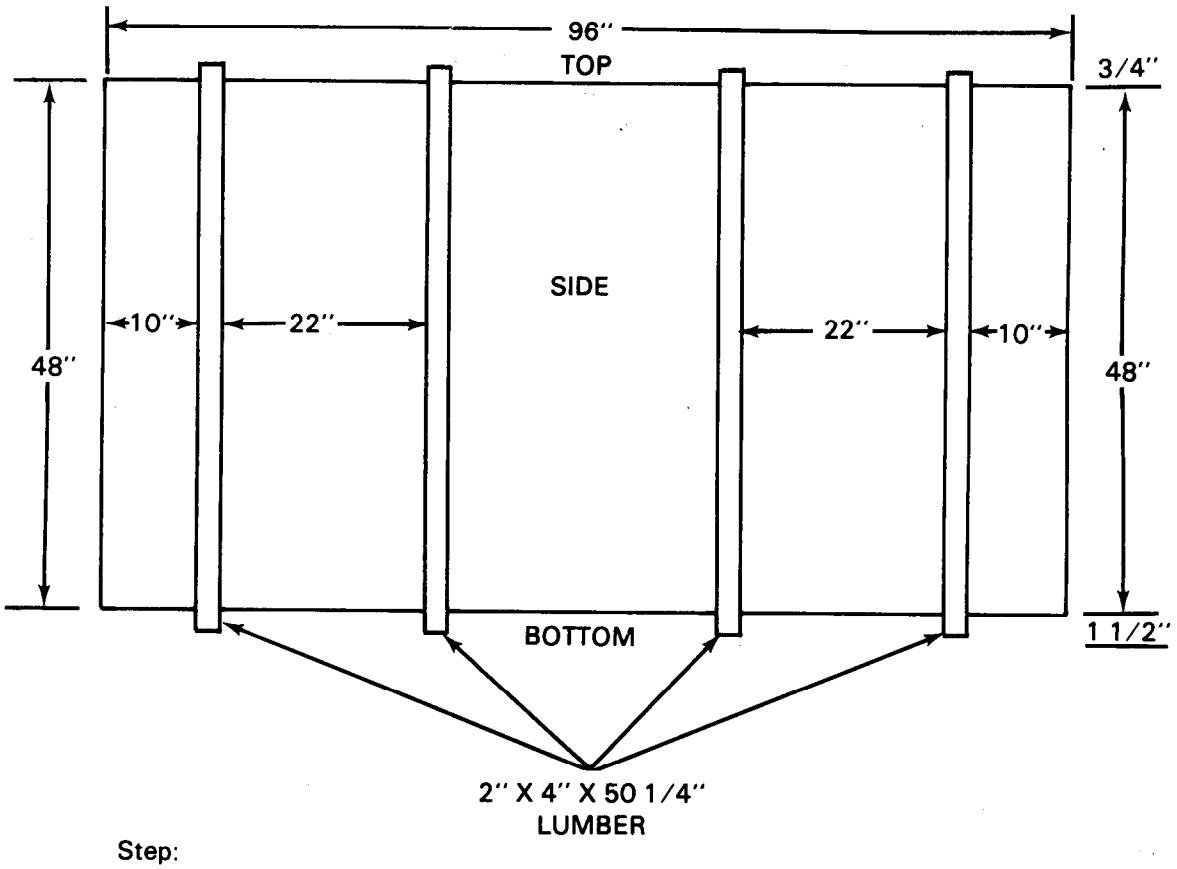
Step:

1. Cut a 3/4- by 24- by 96-inch piece of plywood.
2. Cut four 2- by 4- by 27-inch pieces of lumber.
3. Place the 2- by 4-inch pieces of lumber so that they overhang on each side about 1 1/2 inches over the plywood.
4. Nail a 2- by 4-inch piece of lumber 10 inches from the 24-inch sides using eightpenny nails.
5. Nail a 2- by 4-inch piece of lumber 22 inches from the lumber placed in step 4 above using eightpenny nails.

Figure 6-3. Top for FARE container built

b. Building Sides. Build the sides for the container as shown in Figure 6-4.

Note: ***This drawing is not drawn to scale.***



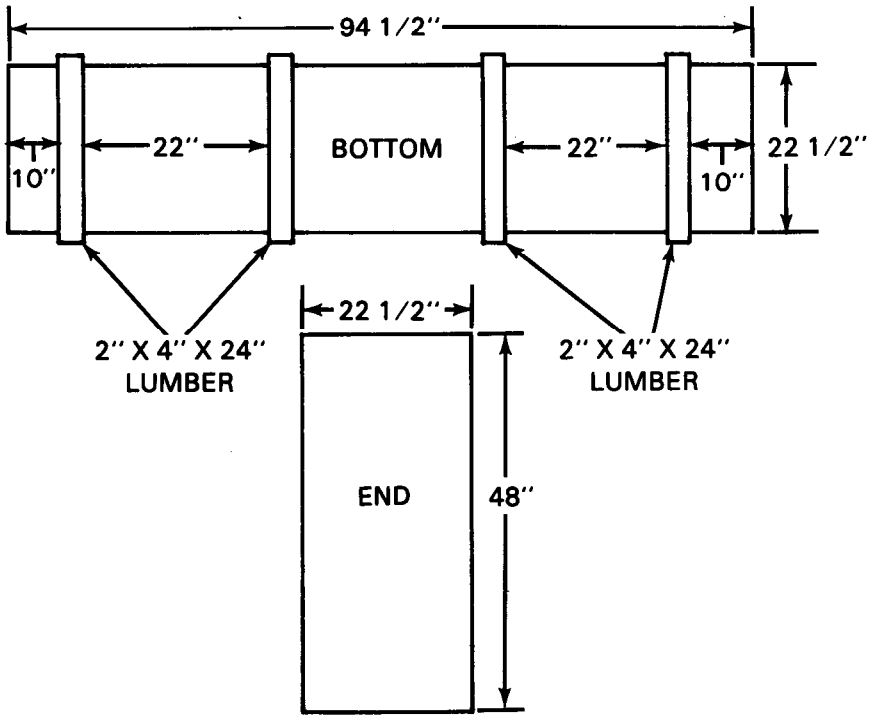
Step:

1. Use two 3/4- by 48- by 96-inch pieces of plywood.
2. Cut eight 2- by 4- by 50 1/4-inch pieces of lumber.
3. Place the 2- by 4-inch pieces of lumber so that the top overhangs 3/4 inch and the bottom overhangs 1 1/2 inches.
4. Nail a 2- by 4-inch piece of lumber 10 inches from the 48-inch sides using eightpenny nails.
5. Nail a 2- by 4-inch piece of lumber 22 inches from the lumber placed in step 4 above using eightpenny nails.

Figure 6-4. Sides for FARE container built

c. Building Bottom and Ends. Build the bottom and the ends for the container as shown in Figure 6-5.

Note: ***These drawings are not drawn to scale.***

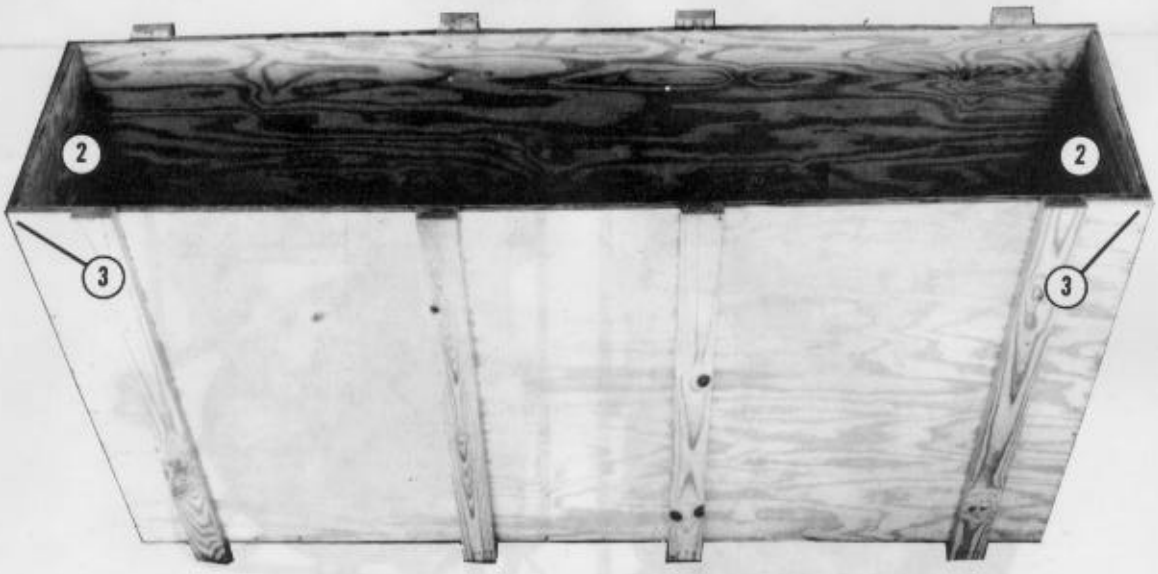


Step:

1. Cut a 3/4- by 22 1/2- by 94 1/2-inch piece of plywood.
2. Cut four 2- by 4- by 24-inch pieces of lumber.
3. Place the 2- by 4-inch pieces of lumber so that they overhang 3/4 inch over the plywood.
4. Nail a 2- by 4-inch piece of lumber 10 inches from the 22 1/2-inch sides using eightpenny nails.
5. Nail a 2- by 4-inch piece of lumber 22 inches from the lumber placed in step 4 above using eightpenny nails.
6. Cut two 3/4- by 22 1/2- by 48-inch pieces of plywood to be used as end pieces.

Figure 6-5. Bottom and ends for FARE container built

d. Assembling Container. Assemble the container for the FARE as shown in Figure 6-6.



(1) Place the bottom piece (not shown) on the floor.

(2) Nail the end pieces to the bottom piece.

(3) Nail the side pieces so that the end pieces are inside of the sides.

Note: ***Matching of the lumber is critical to ensure sturdiness.***

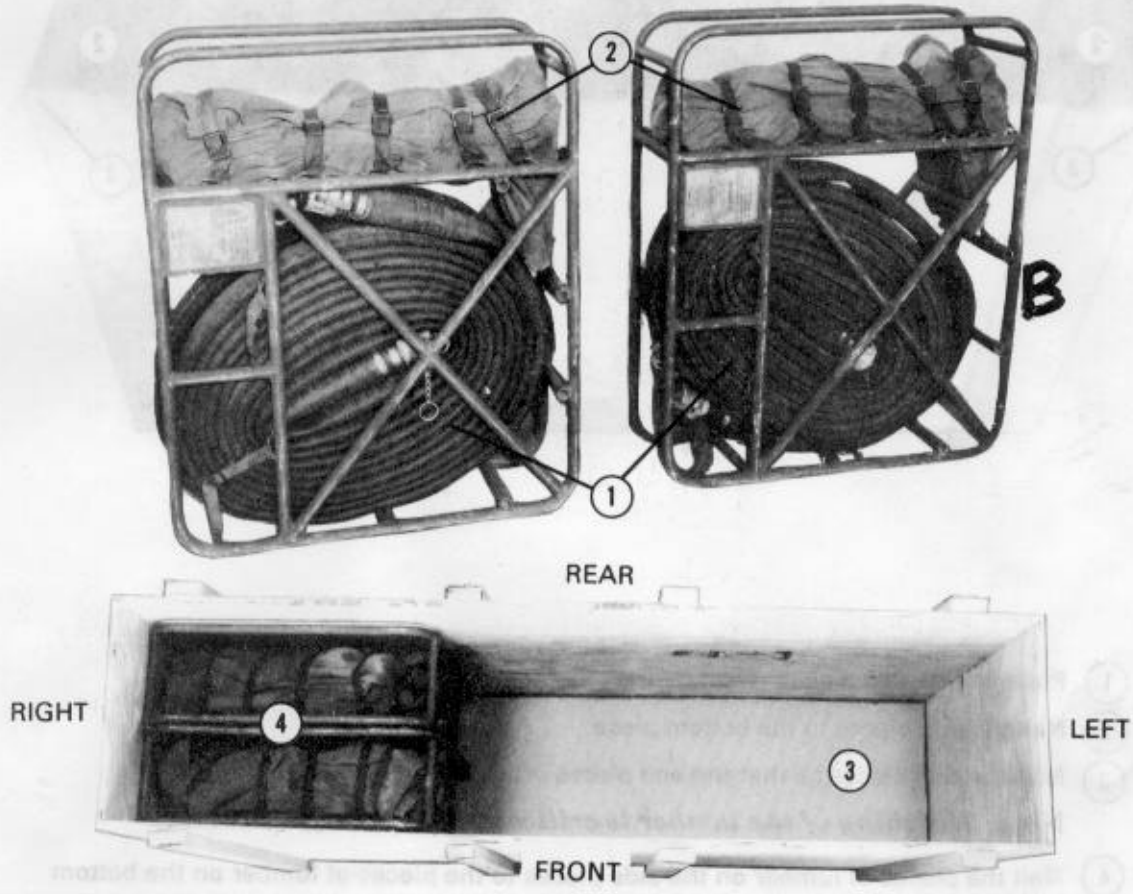
(4) Nail the pieces of lumber on the side pieces to the pieces of lumber on the bottom piece (not shown).

Figure 6-6. Container assembled

6-5. Preparing and Stowing FARE in Container

Prepare the components of the FARE and stow them in the container as described below.

a. Preparing Discharge Hose Frame Assemblies. Prepare the discharge hose frame assemblies, and stow them in the container as shown in Figure 6-7.



(1) Roll the discharge hoses, and place them in the discharge hose frame assemblies.

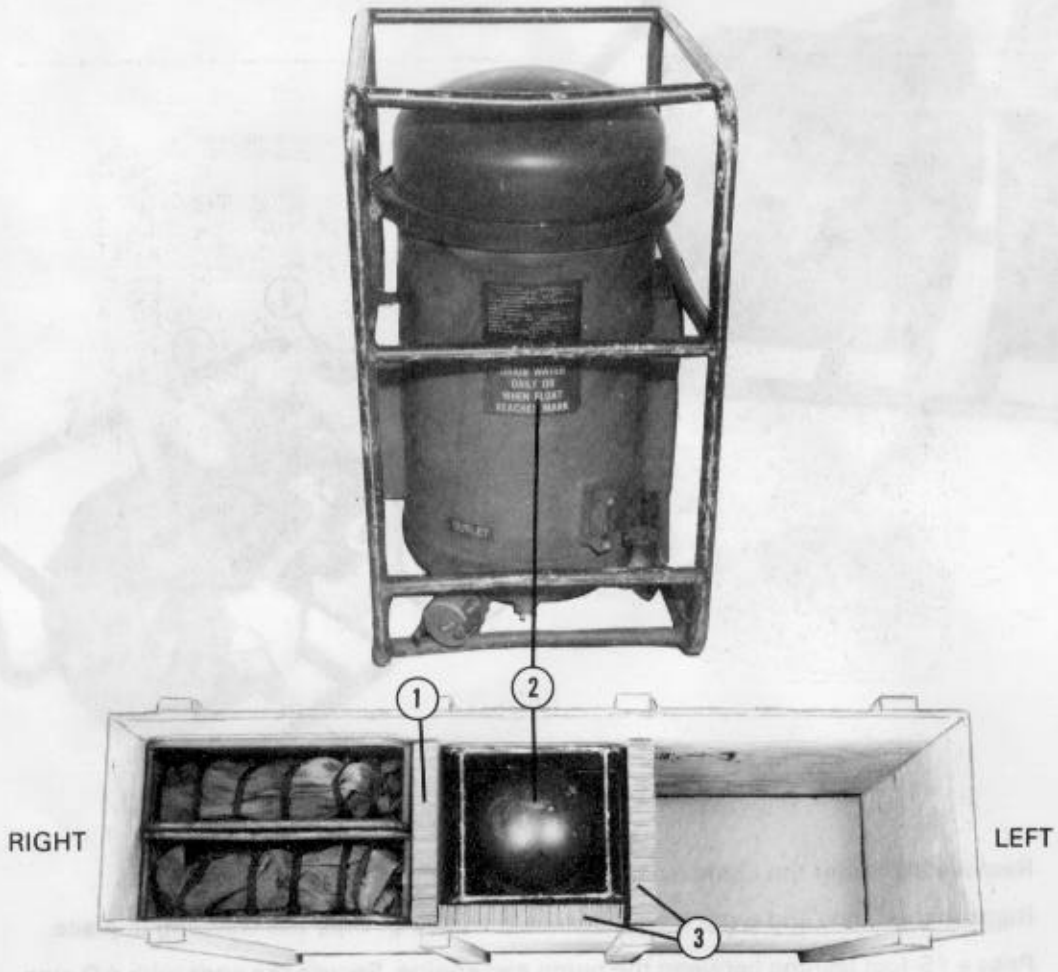
(2) Place the discharge hose accessory fittings into the accessory fittings storage compartment.

(3) Place a 22- by 94-inch piece of honeycomb in the bottom of the container.

(4) Place the two discharge hose frame assemblies in the right side of the container.

Figure 6-7. Discharge hose frame assemblies prepared and stowed

b. Preparing Filter/Separator Assembly. Prepare the filter/separator assembly, and stow it in the container as shown in Figure 6-8.



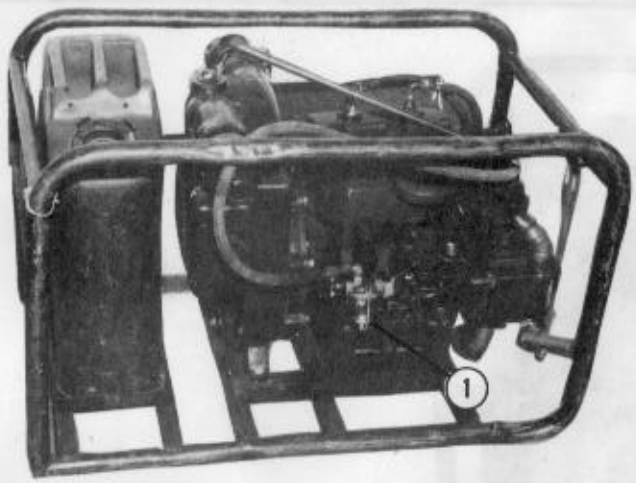
(1) Place a 22- by 36-inch piece of honeycomb against the discharge hose frame assemblies.

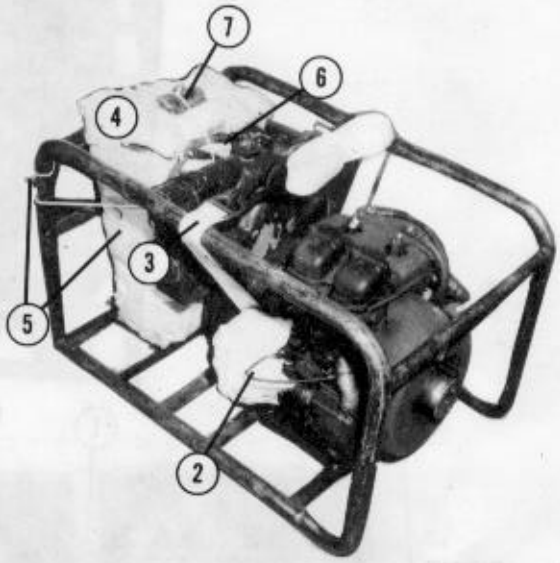
(2) Place the filter/separator assembly in the frame against the rear of the container and flush against the honeycomb placed in step 1 above.

(3) Use two 22- by 36-inch pieces of honeycomb. Place one piece in front of the filter/separator assembly frame and another against the left side of the filter/separator assembly frame.

Figure 6-8. Filter/separator assembly prepared and stowed

c. Preparing Pump/Engine Assembly. Prepare the pump/engine assembly for stowing as shown in Figure 6-9, and stow it in the container as shown in Figure 6-10.





(1) Remove and drain the liquid from the fuel filter.

(2) Replace the filter, and wrap it with cellulose wadding. Tape the wadding in place.

(3) Pass a 15-foot lashing between the pump and engine. Secure the ends with a D-ring and a load binder on top of the engine assembly frame.

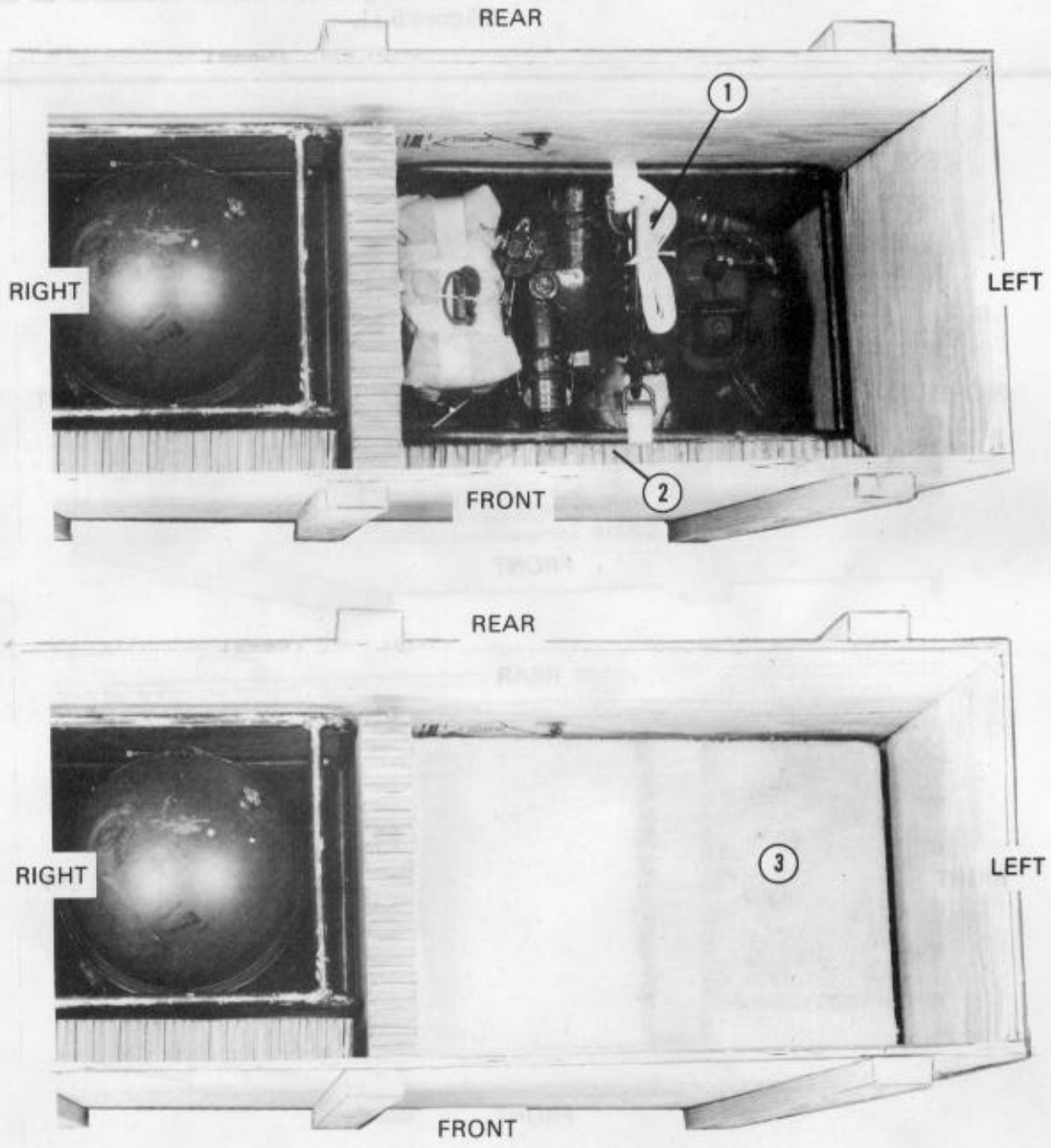
(4) Wrap a 5-gallon fuel can with cellulose wadding. Tape the wadding in place.

(5) Set the can inside the engine assembly frame. Secure it in place with the retainer lashings or a length of type III nylon cord.

(6) Secure the fuel line to the fuel can using a length of type III nylon cord.

(7) Secure the starting rope to the top of the fuel can with a length of type III nylon cord.

Figure 6-9. Pump/engine assembly prepared



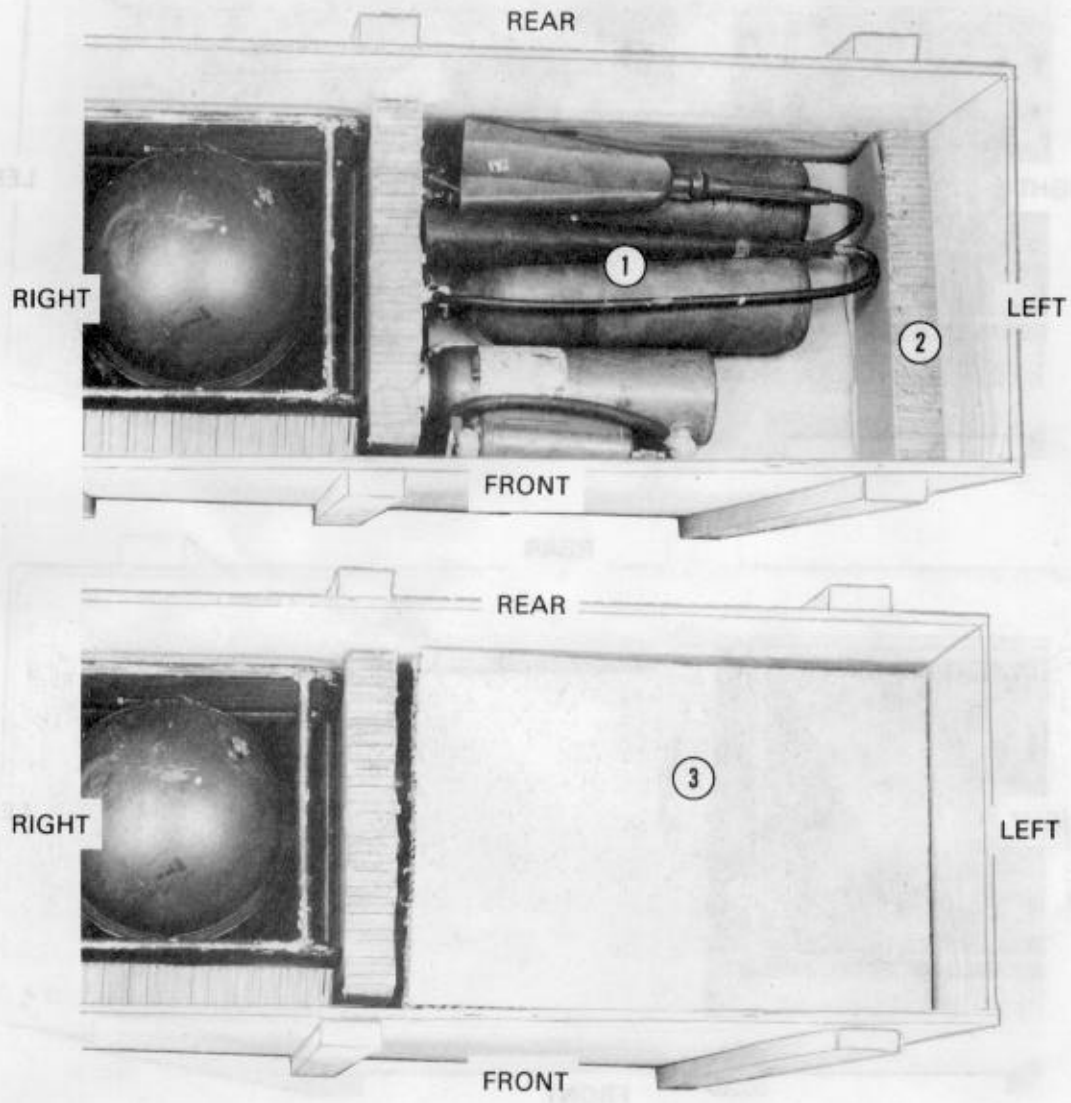
(1) Place the pump/engine assembly into the left side of the container.

(2) Place a 22- by 32-inch piece of honeycomb between the pump/engine assembly and the front of the container.

(3) Place another 22- by 32-inch piece of honeycomb over the pump/engine assembly.

Figure 6-10. Pump/engine assembly stowed

d. Stowing Fire Extinguishers. Stow the fire extinguishers in the container as shown in Figure 6-11.



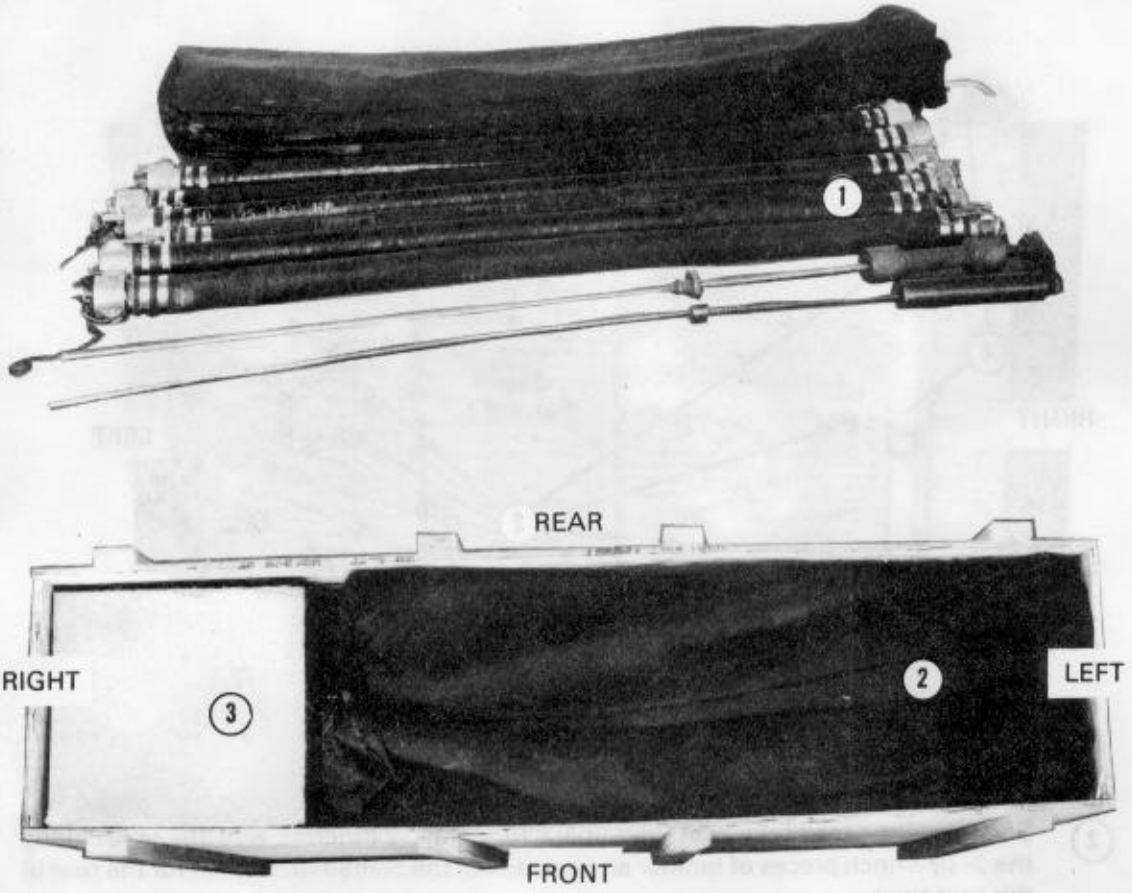
(1) Place three fire extinguishers on the 22- by 32-inch piece of honeycomb.

(2) Place an 8- by 22-inch piece of honeycomb between the fire extinguishers and the left side of the container.

(3) Cover the fire extinguishers with a 22- by 32-inch piece of honeycomb.

Figure 6-11. Fire extinguishers stowed

e. Preparing and Stowing Ground Rods, Suction Hoses, and Suction Hose Bags. Prepare the ground rods, suction hoses, and suction hose bags. Stow the suction hose bags in the container as shown in Figure 6-12.



(1) Place two ground rods and six suction hoses into each suction hose bag.

(2) Place the two suction hose bags into the left side of the container.

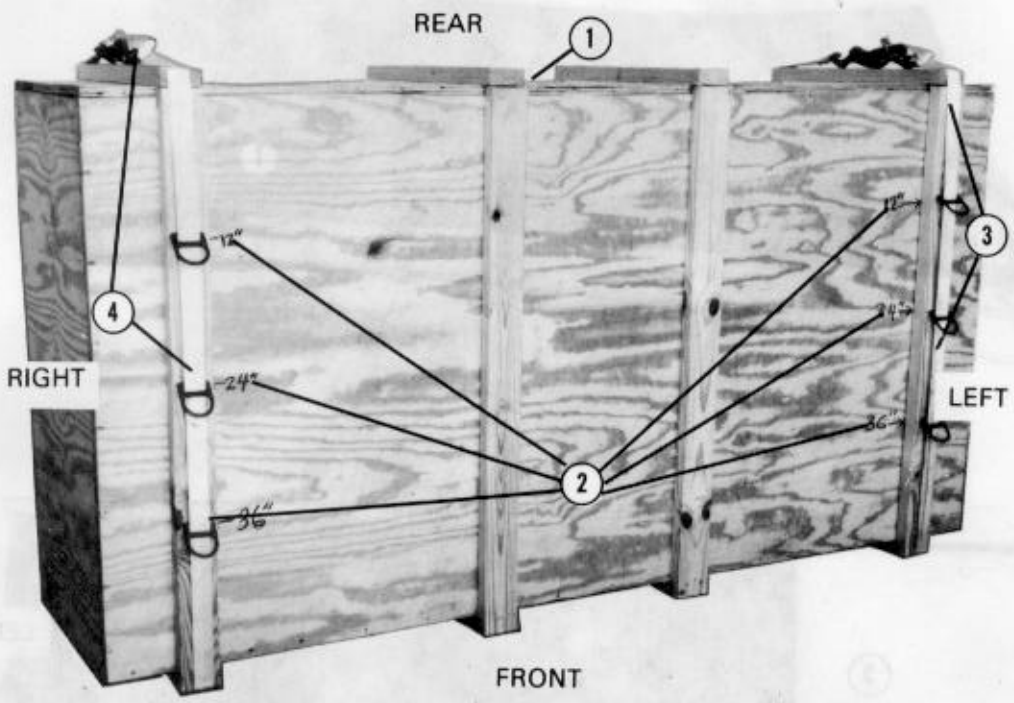
(3) Place a 22- by 23-inch piece of honeycomb between the suction hose bags and the right side of the container.

Figure 6-12. Ground rods, suction hoses, and bags prepared and stowed

6-6. Securing Container

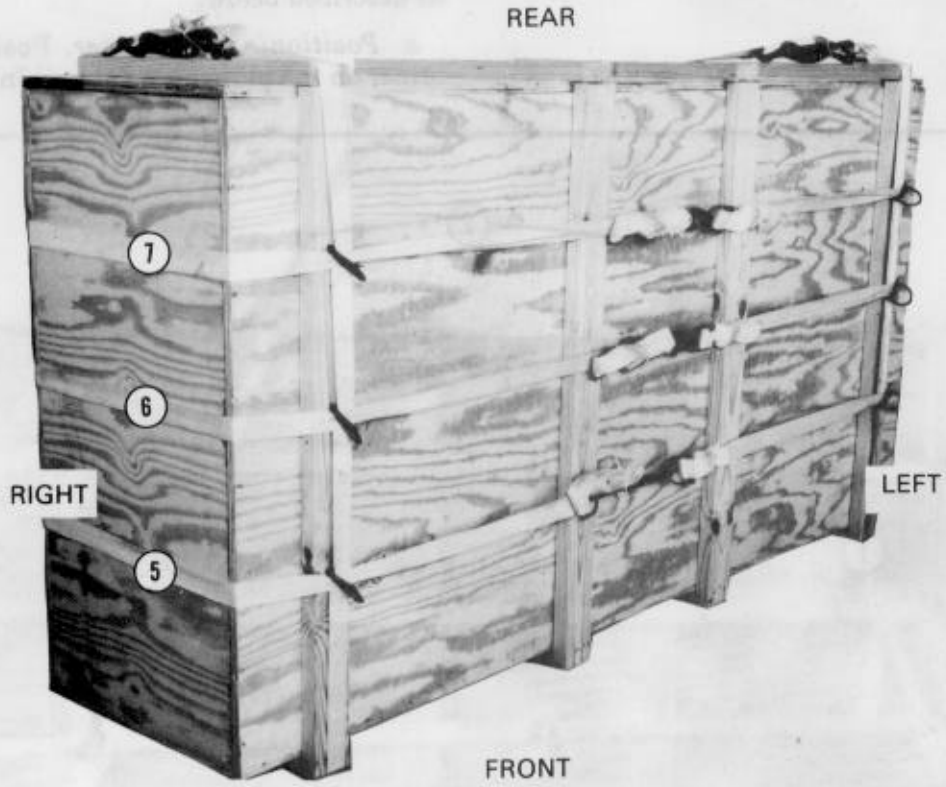
Use ten 15-foot tie-down assemblies to secure the container as shown in Figure 6-13.

Note: ***Fit all D-rings, and close the load binders as outlined in FM 10-500-2/TO 13C7-1-5.***



1. Set the top (Figure 6-3) on the container.
2. Starting at the top of the container, mark 12 inches, 24 inches, and 36 inches along the 2- by 4-inch pieces of lumber on each end of the container. Repeat for the rear of the container.
3. Slide six D-rings on a 30-foot lashing. Run the lashing around the 2- by 4-inch pieces of lumber on the left side of the container. Position a pre-positioned D-ring at the 12-inch, 24-inch, and 36-inch marks on the front and rear of the container. Secure the lashing according to FM 10-500-2/TO 13C7-1-5 on top of the container.
4. Repeat step 3 above on the right side of the container. Secure the lashing according to FM 10-500-2/TO 13C7-1-5 on top of the container.

Figure 6-13. Container secured



(5) Form one 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. At the 36-inch mark, pass one end of the lashing around the left side of the container through the small opening of the D-ring. Repeat this procedure for the right side of the container. Secure the lashing with a D-ring and a load binder according to FM 10-500-2/TO 13C7-1-5 to the front of the container.

(6) Repeat step 5 above at the 24-inch mark.

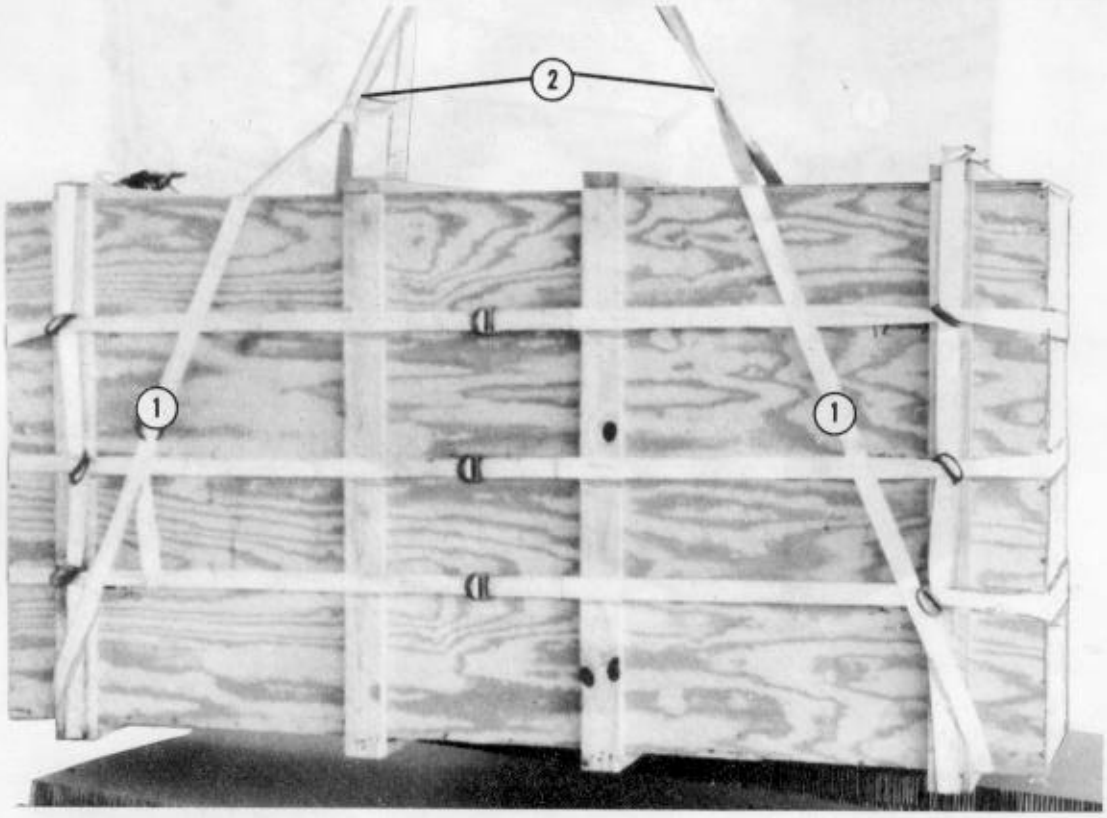
(7) Repeat step 5 above at the 12-inch mark.

Figure 6-13. Container secured (continued)

6-7. Positioning and Lashing Container

Position the container and lash it to the platform as described below.

a. Positioning Container. Position the container on the platform as shown in Figure 6-14.

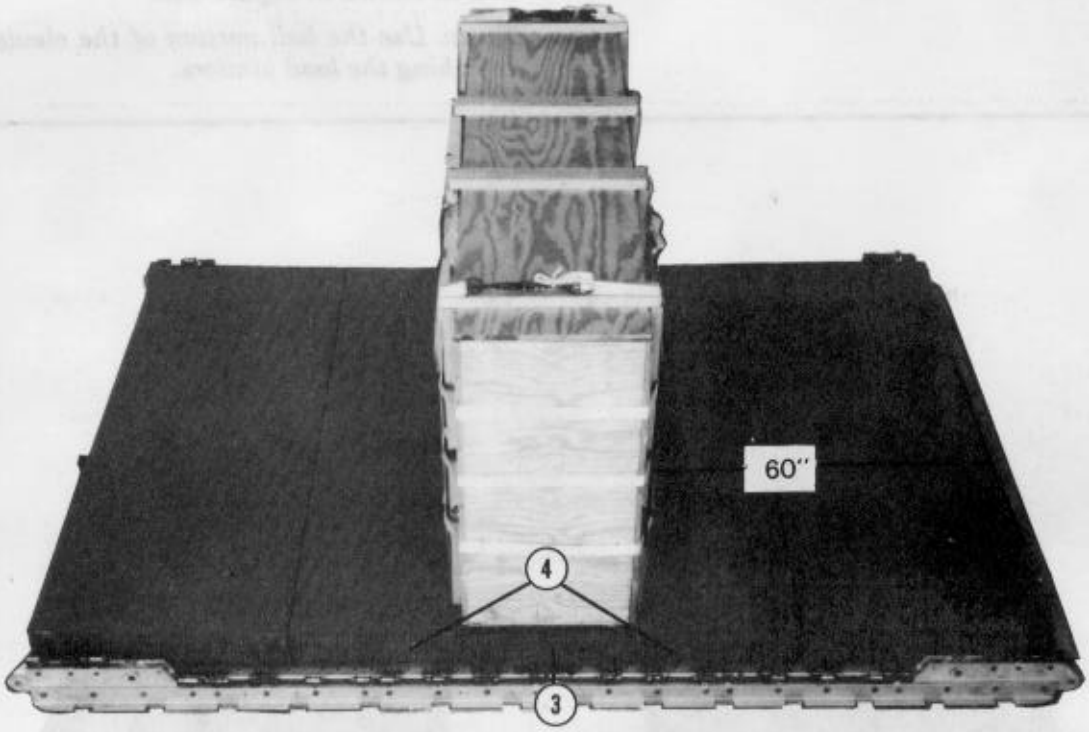


(1) Pass a 15-foot lashing around each end of the container. Secure the ends with a D-ring.

(2) Pass a 15-foot lashing (to act as an apex) through the two lashings in step 1 above. Secure the ends with a D-ring.

Note: ***A crane inside the building may be used. However, any other method may be used if a crane is not available.***

Figure 6-14. Container positioned



(3) Place an 11 1/4-inch centering mark on both sides on the bottom of the container.

(4) Center the centering marks between honeycomb stacks 2 and 3.

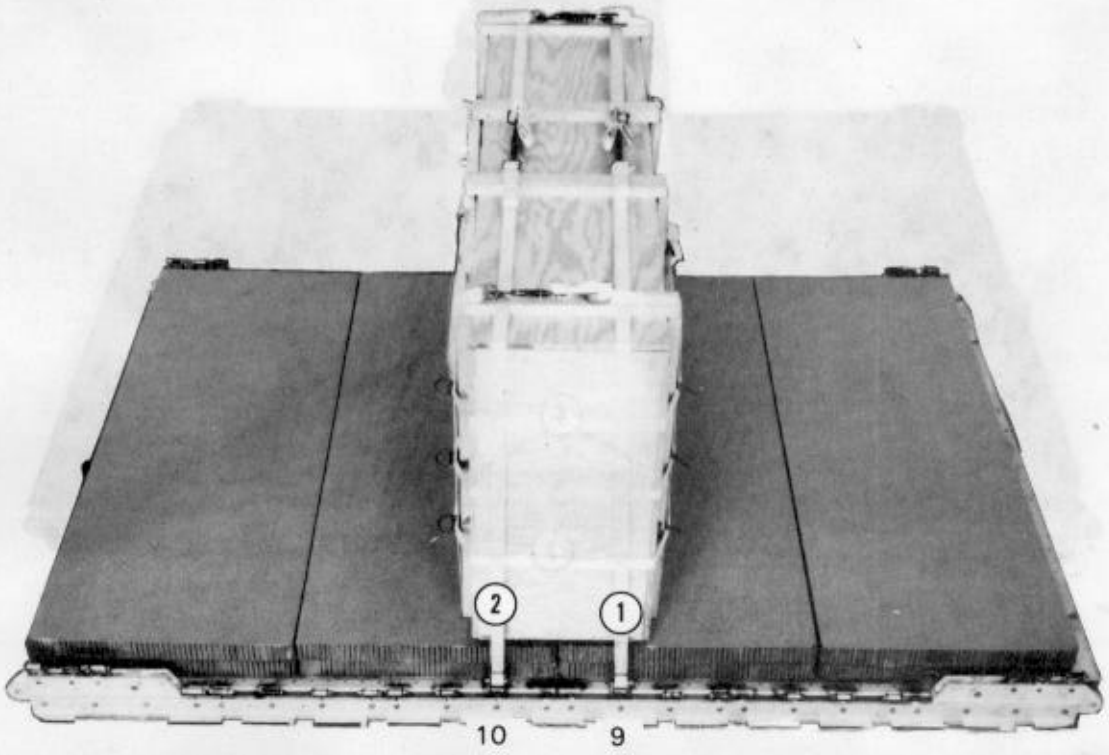
(5) Lift and center the container between honeycomb stacks 2 and 3 (not shown).

(6) Make sure the front of the container is 60 inches from the front edge of honeycomb stack 1.

Figure 6-14. Container positioned (continued)

b. Lashing Container. Use sixteen 15-foot tie-down assemblies to lash the container to the platform as outlined in FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-15.

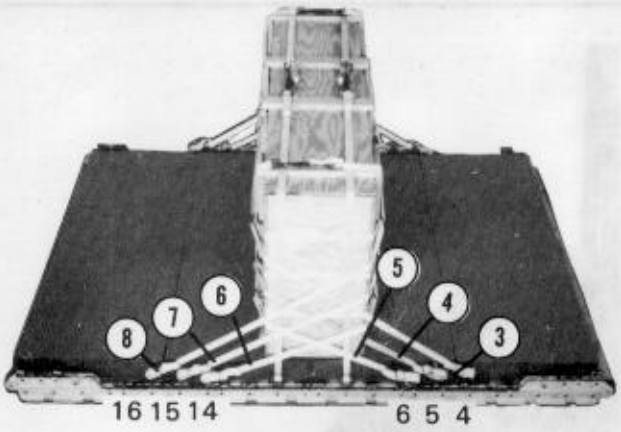
Note: *Use the bell portion of the clevises when attaching the load binders.*

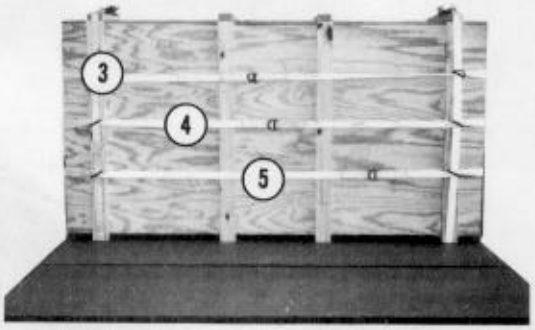


Lashing Number	Tie-down Clevis Number	Instructions
1*	9	Pass lashing: Through clevis and back through its own D-ring.
	9A	Through clevis and back through its own D-ring. Fasten lashings on top of container with two D-rings and a load binder.
2*	10	Through clevis and back through its own D-ring.
	10A	Through clevis and back through its own D-ring. Fasten lashings on top of container with two D-rings and a load binder.

*30-foot lashing

Figure 6-15. Container lashed to platform





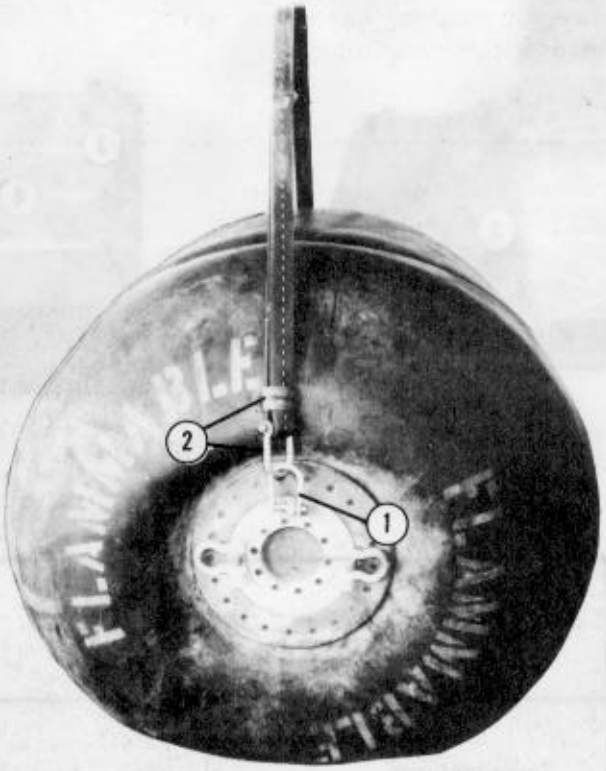
Lashing Number	Tie-down Clevis Number	Instructions
		Pass lashing:
3*	4 and 4A	Around the rear of the container using the top row of D-rings.
4*	5 and 5A	Around the rear of the container using the middle row of D-rings.
5*	6 and 6A	Around the rear of the container using the bottom row of D-rings.
6*	14 and 14A	Around the front of the container using the bottom row of D-rings.
7*	15 and 15A	Around the front of the container using the middle row of D-rings.
8*	16 and 16A	Around the front of the container using the top row of D-rings.

*30-foot lashing

Figure 6-15. Container lashed to platform (continued)

6-8. Attaching Lifting Slings

Attach the lifting slings to each fuel drum using four clevises and two 12-foot (2-loop), type XXVI nylon webbing slings as shown in Figure 6-16.



Note: ***Make sure the drums and drum fittings are not leaking and that two shackles are on the swivel plate.***

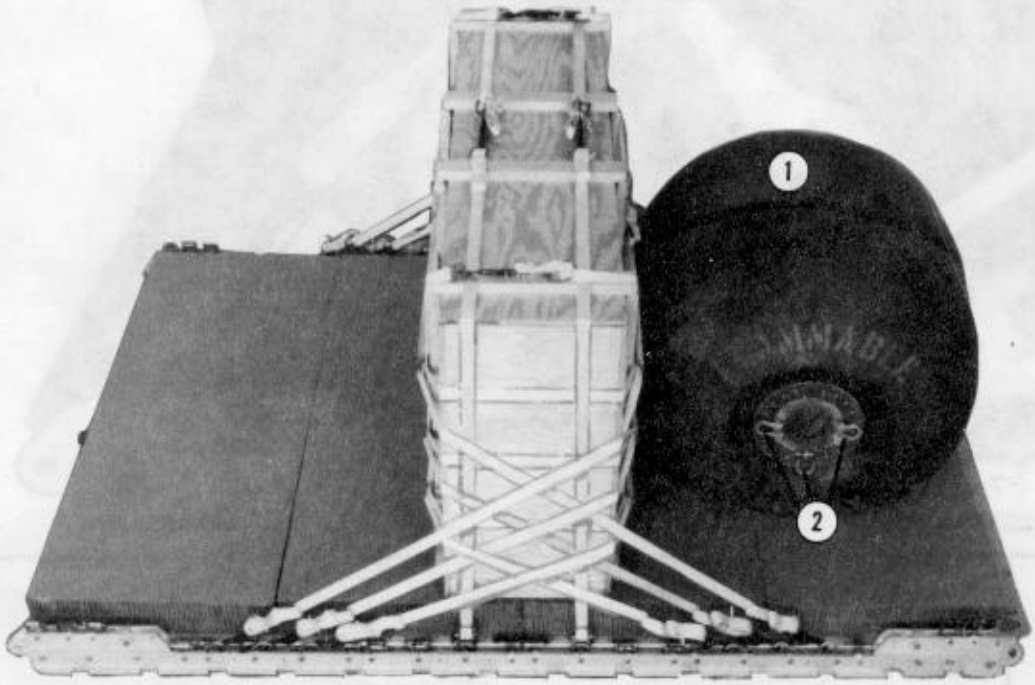
1. Bolt a clevis to the center shackle of the swivel plate.
2. Route a clevis through the center clevis bolted to the shackle. Bolt the clevis to a 12-foot sling.
3. Repeat steps 1 and 2 on the opposite side of the fuel drum and for the remaining fuel drum (not shown).

Figure 6-16. Lifting slings installed

6-9. Placing and Lashing Fuel Drums

Place and lash the fuel drums on the platform as described below.

a. Front Fuel Drum. Place the front fuel drum on the platform as shown in Figure 6-17. Lash the front fuel drum to the front of the platform as shown in Figure 6-18. Secure the ends of the lashings with D-rings and a load binder according to FM 10-500-2/TO 13C7-1-5.

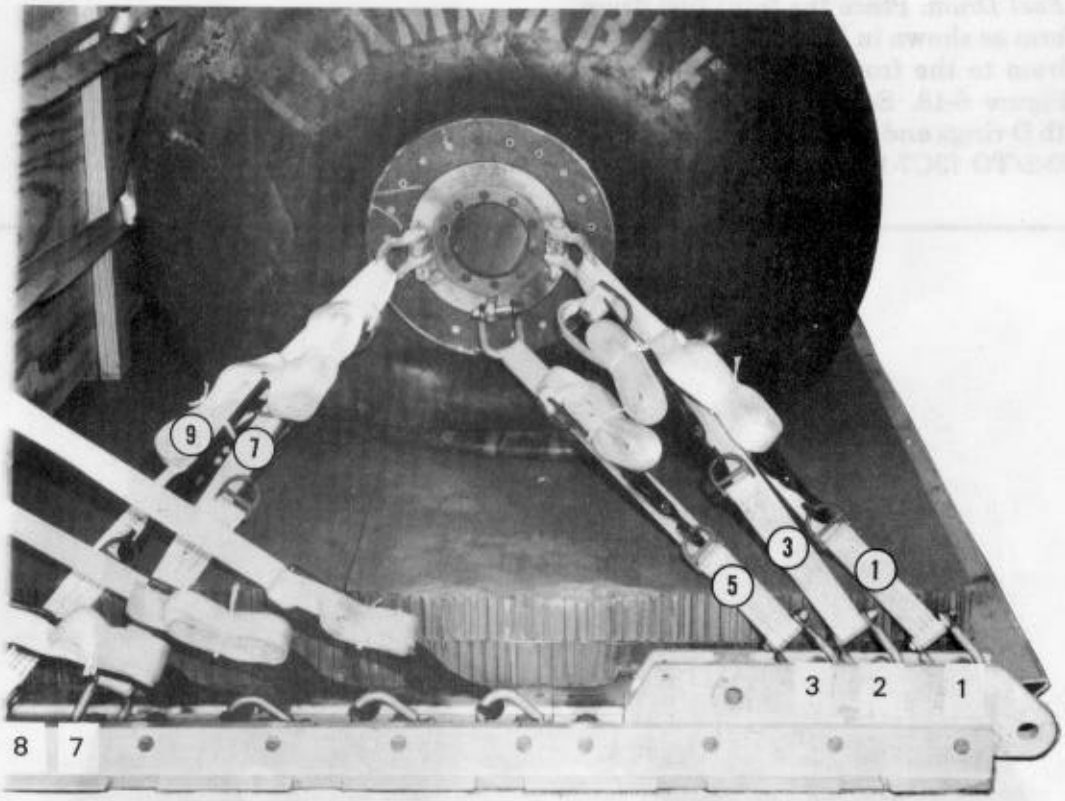


(1) Center the drum on the front of the platform. Place the drum flush against the container.

(2) Remove the lifting slings (not shown). Make sure the shackles on the drums are parallel to the platform and the center clevis is in the bottom position.

Figure 6-17. Front fuel drum placed on platform

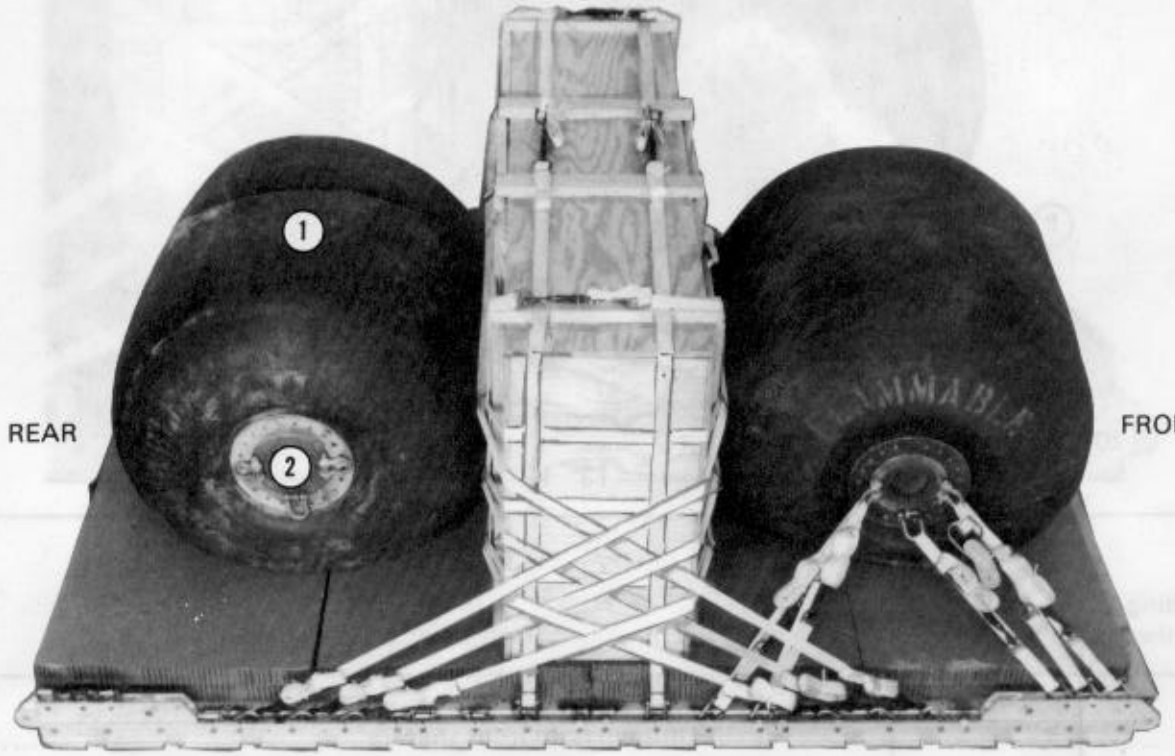
Note: ***Secure the ends of the lashings with D-rings and load binders as outlined in FM 10-500-2/TO 13C7-1-5.***



Lashing Number	Tie-down Clevis Number	Instructions
		Pass lashing:
1	1	Through right front shackle.
2	1A	Through left front shackle.
3	2	Through right front shackle.
4	2A	Through left front shackle.
5	3	Through right center clevis.
6	3A	Through left center clevis.
7	7	Through right rear shackle.
8	7A	Through left rear shackle.
9	8	Through right rear shackle.
10	8A	Through left rear shackle.

Figure 6-18. Front drum lashed to platform

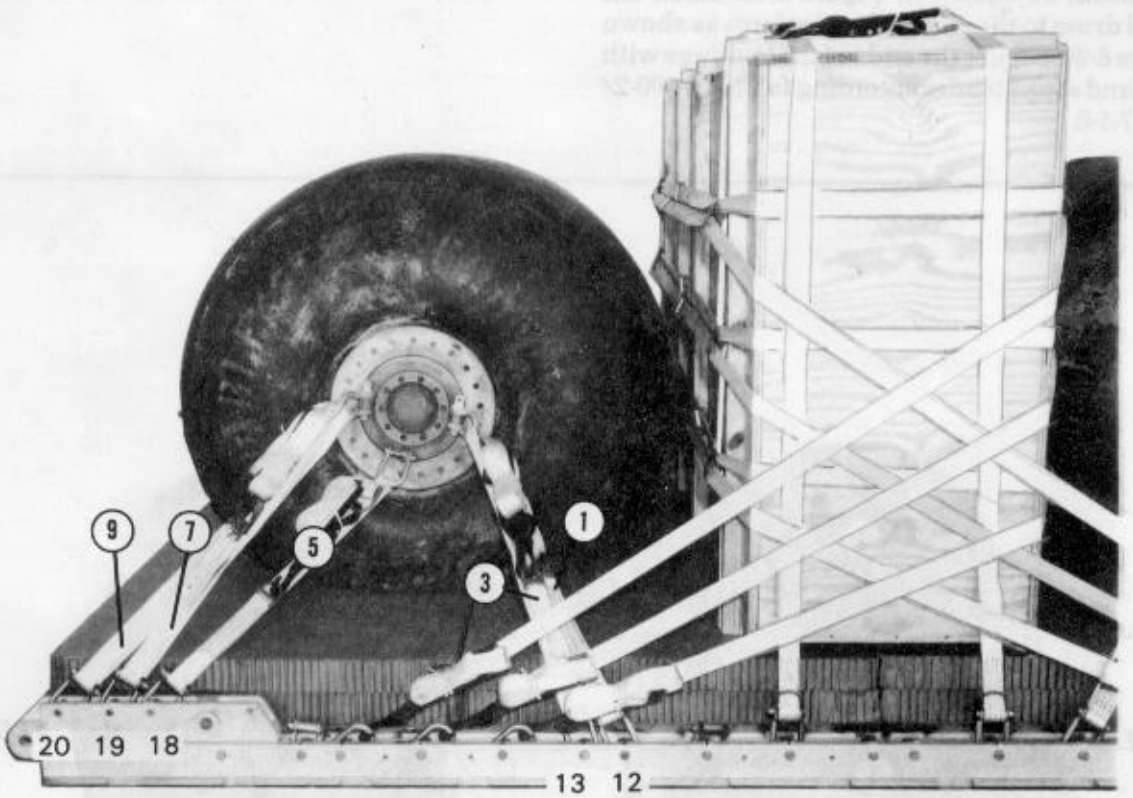
b. Rear Fuel Drum. Place the rear fuel drum on the platform as shown in Figure 6-19. Lash the rear fuel drum to the rear of the platform as shown in Figure 6-20. Secure the ends of the lashings with D-rings and a load binder according to FM 10-500-2/TO 13C7-1-5.



(1) Center the drum on the rear of the platform. Place it flush against the container.

(2) Remove the lifting slings (not shown). Make sure the shackles on the drums are parallel to the platform and the center clevis is in the bottom position.

Figure 6-19. Rear fuel drum placed on platform

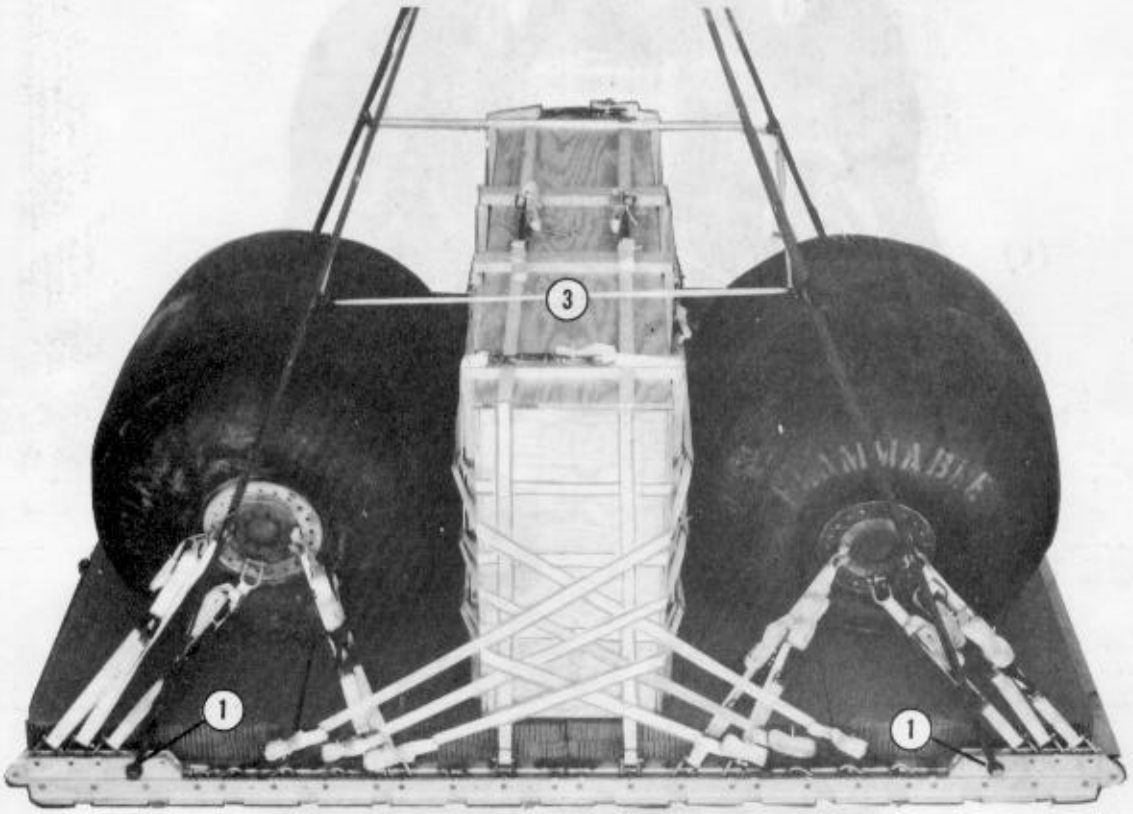


Lashing Number	Tie-down Clevis Number	Instructions
		Pass lashing:
1	12	Through right front shackle.
2	12A	Through left front shackle.
3	13	Through right front shackle.
4	13A	Through left front shackle.
5	18	Through right center clevis.
6	18A	Through left center clevis.
7	19	Through right rear shackle.
8	19A	Through left rear shackle.
9	20	Through right rear shackle.
10	20A	Through left rear shackle.

Figure 6-20. Rear drum lashed to platform

6-10. Installing Suspension Slings

Install four large suspension clevises and four 12-foot (3-loop), type X or four 12-foot (2-loop), type XXVI nylon webbing slings to the tandem links as shown in Figure 6-21.



(1) Bolt a 12-foot sling to each tandem link using a large suspension clevis.

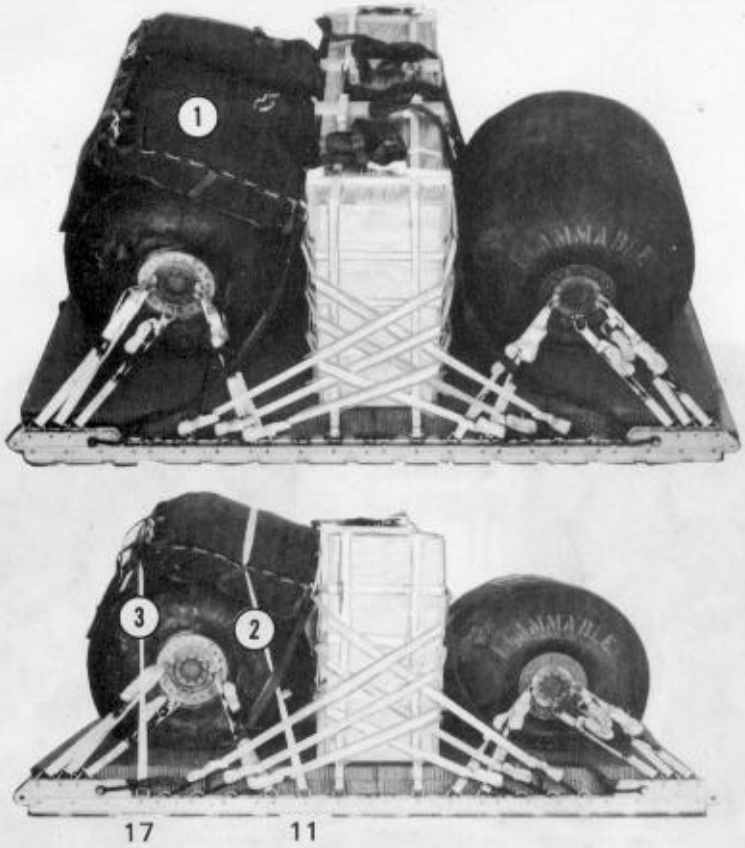
(2) Raise the suspension slings to their full length using a lifting provision (not shown).

(3) Safety the slings with a deadman's tie according to FM 10-500-2/TO 13C7-1-5.

Figure 6-21. Suspension slings installed

6-11. Stowing Cargo Parachutes

Prepare, place, and restrain three G-11A or two G-11B cargo parachutes according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-22.



(1) Place the cargo parachutes on top of the rear fuel drums.

CAUTION

As an exception to the FM 10-500-2/TO 13C7-1-5 parachute restraint system, two restraints will be on this load.

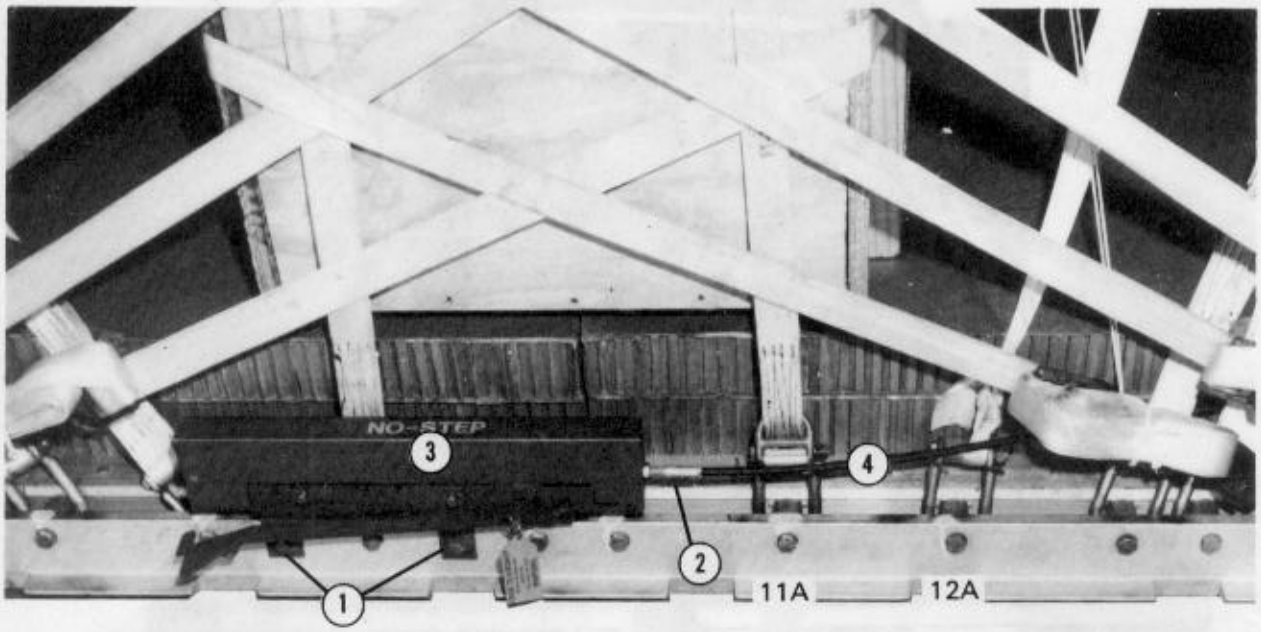
(2) Secure the parachutes according to FM 10-500-2/TO 13C7-1-5 using two lengths of type VIII nylon webbing. Attach one length of webbing from clevises 11 and 11A using a trucker's hitch according to FM 10-500-2/TO 13C7-1-5.

(3) Attach the second length of webbing according to FM 10-500-2/TO 13C7-1-5 from clevises 17 and 17A using a trucker's hitch according to FM 10-500-2/TO 13C7-1-5.

Figure 6-22. Cargo parachutes stowed

6-12. Installing Extraction System

Install the EFTC extraction system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-23.



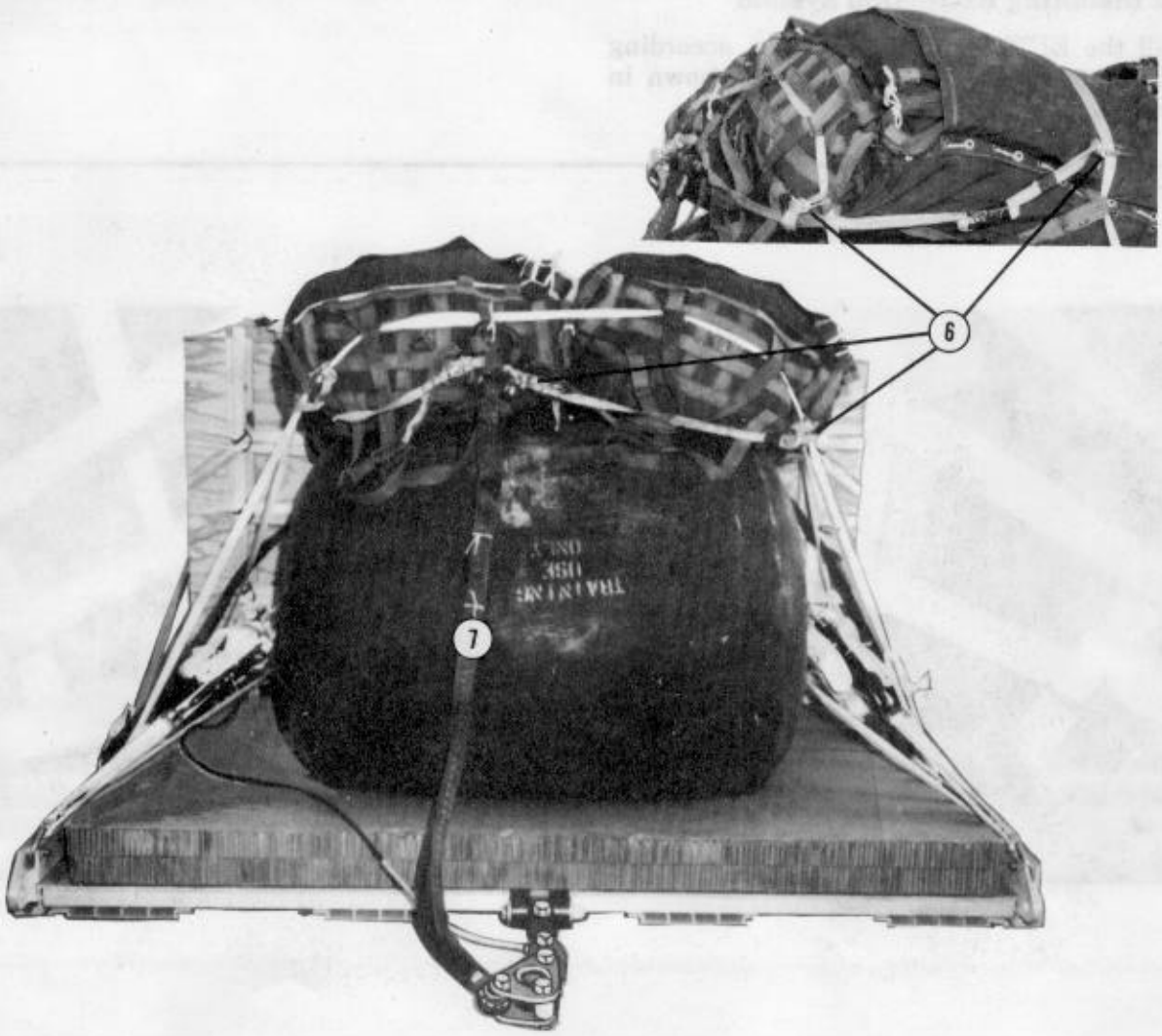
(1) Install the actuator mounting brackets to the rear EFTC mounting holes on the left side rail.

(2) Install a 12-foot cable to the actuator assembly.

(3) Attach the actuator assembly to the mounting brackets.

(4) Route the cable from the actuator assembly between clevises 11A and 12A toward the rear of the platform.

Figure 6-23. Extraction system installed



(5) Safety the 12-foot cable to lashing 18A with a piece of type I, 1/4-inch cotton webbing. (not shown)

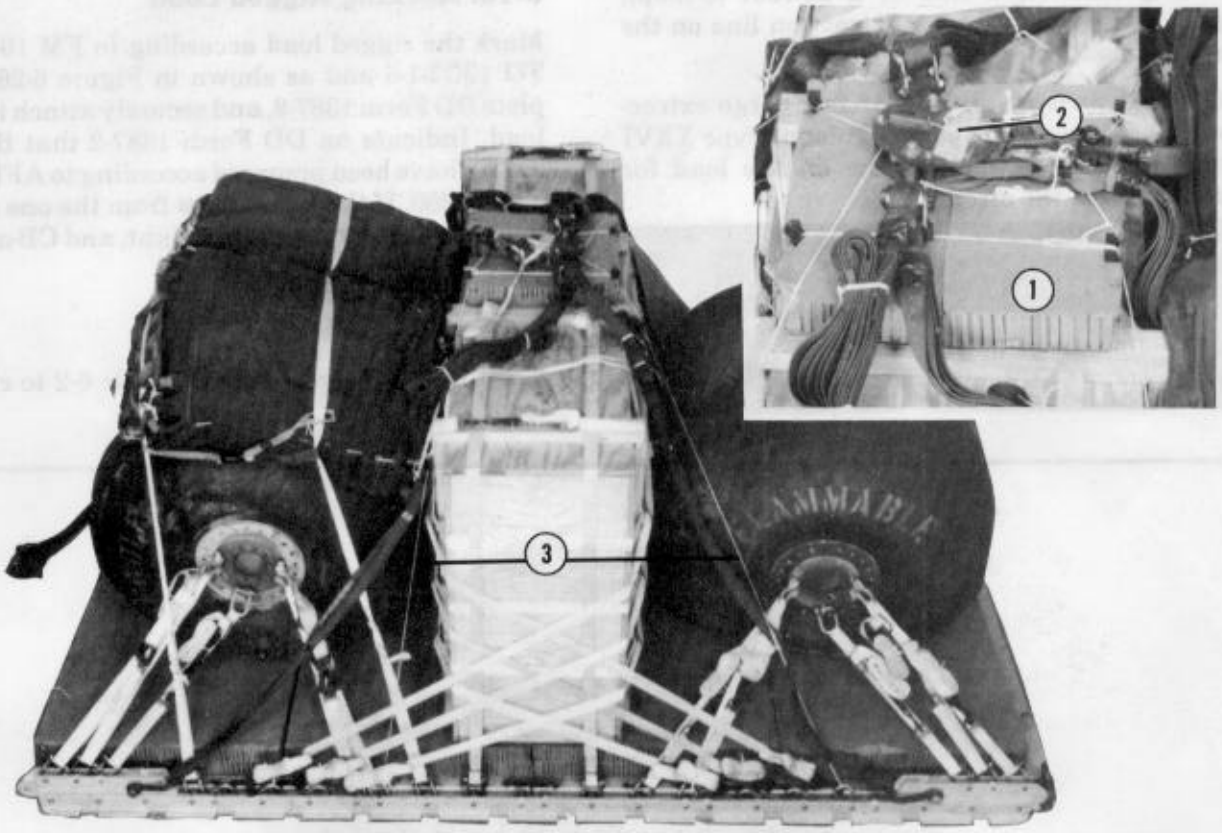
(6) Cluster the parachutes with a large clevis, and install the release knives according to FM 10-500-2/TO 13C7-1-5.

(7) Use a 9-foot (2-loop), type XXVI nylon webbing sling for the deployment line.

Figure 6-23. Extraction system installed (continued)

6-13. Installing Parachute Release System

Prepare and attach an M-1 cargo parachute release according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-24.



(1) Place a 24- by 24-inch piece of honeycomb on top of the container.

(2) Place the M-1 cargo parachute release on top of the honeycomb, and attach it according to FM 10-500-2/TO 13C7-1-5.

(3) Secure the M-1 cargo parachute release according to FM 10-500-2/TO 13C7-1-5 with a length of type III nylon cord to clevises 4, 4A, 12, and 12A.

Figure 6-24. Parachute release attached

6-14. Positioning Extraction Parachute

Position the extraction parachute as described below.

a. C-130 Aircraft. Place a 22-foot cargo extraction parachute and a 60-foot (3-loop), type X nylon webbing extraction line or a 60-foot (3-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

b. C-141 Aircraft. Place a 15-foot cargo extraction parachute and a 160-foot (1-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

CAUTION

The extraction line will be a continuous 160-foot (1-loop), type XXVI nylon webbing extraction line. Shorter lines will not be used to form the 160-foot extraction line.

6-15. Installing Provisions for Emergency Restraints

Attach a medium clevis to each front tandem link as shown in Figure 6-25.

6-16. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-26. Complete DD Form 1387-2, and securely attach it to the load. Indicate on DD Form 1387-2 that the fuel drums have been prepared according to AFR 71-4/TM 38-250. If the load varies from the one shown in Figure 6-26, the weight, height, and CB must be recomputed.

6-17. Equipment Required

Use the equipment listed in Table 6-2 to rig this load.

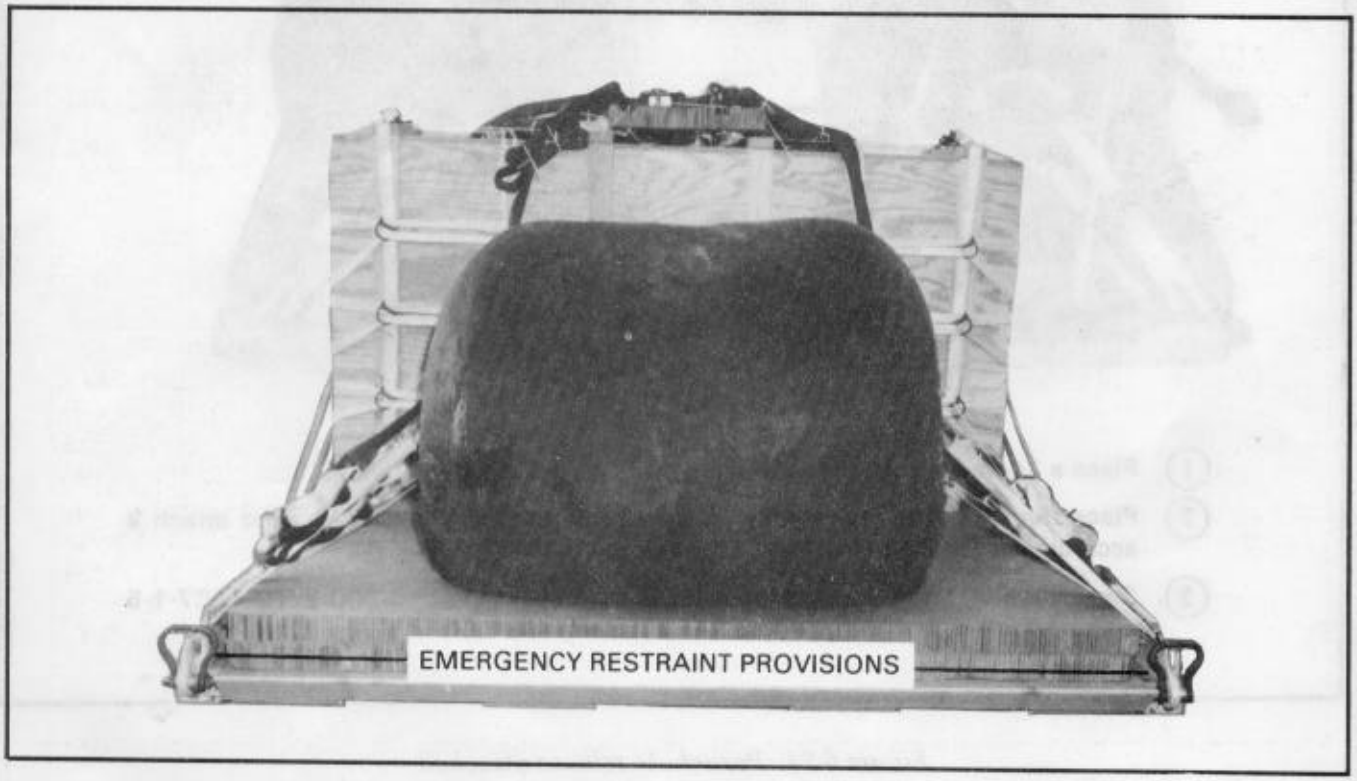
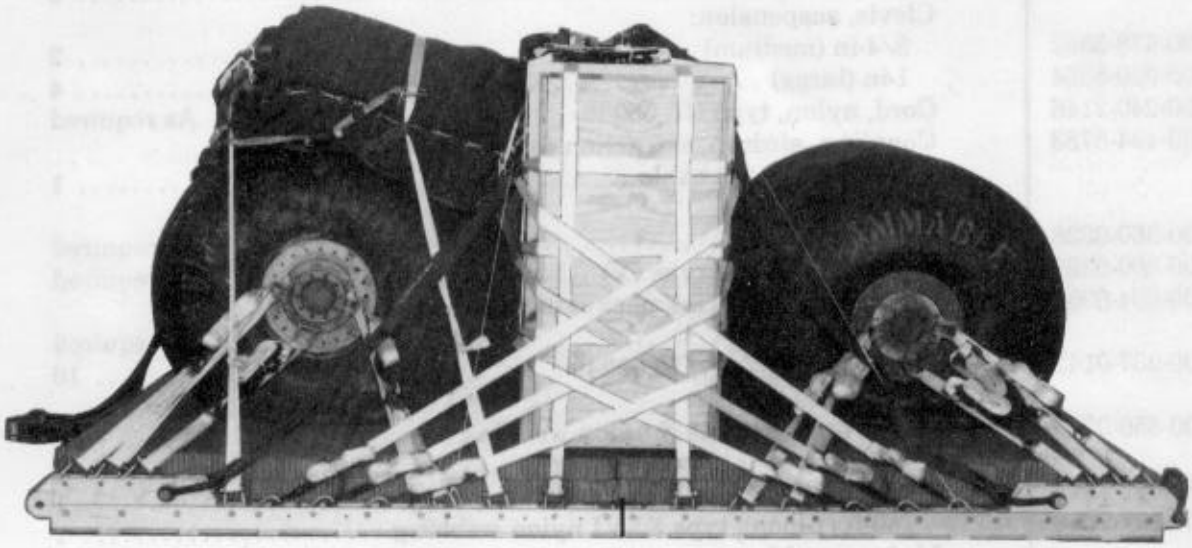


Figure 6-25. Provisions for emergency restraints installed

CAUTION

Make the final rigger inspection required by FM 10-500-2/TO 13C7-1-5 before the load leaves the rigging site.



RIGGED LOAD DATA

Weight:	Load shown	9,107 pounds
	Maximum load allowed	10,000 pounds
Height		70 inches
Width		108 inches
Length		167 inches
Overhang:	Front	5 inches
	Rear	18 inches
CB (from front edge of platform)		72 inches
Extraction System		EFTC

Figure 6-26. FARE with two 500-gallon fuel drums rigged for low-velocity airdrop on a type V platform

Table 6-2. Equipment required for rigging FARE with two 500-gallon fuel drums for low-velocity airdrop on a type V platform

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal	As required
3990-00-937-0272	Binder, load, 10,000-lb	5
	Clevis, suspension:	
4030-00-678-8562	3/4-in (medium)	2
4030-00-090-5354	1-in (large)	4
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5783	Coupling, airdrop, extraction force transfer w 12-ft cable	1
	Cover:	
1670-00-360-0328	Clevis, large	As required
1670-00-360-0329	Link assembly (type IV)	As required
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
5365-00-937-0147	D-ring, heavy-duty, 10,000-lb	16
	Line, extraction:	
1670-00-856-0266	60-ft (3-loop), type X nylon webbing (Use w 22-ft parachute.) or	1
1670-01-062-6313	60-ft (3-loop), type XXVI nylon webbing	1
1670-01-107-7652	160-ft (1-loop), type XXVI nylon webbing	1
	Link assembly:	
	Two-point:	1
5306-00-435-8994	Bolt, 1-in diam, 4-in long	(2)
5310-00-232-5165	Nut, 1-in, hexagon	(2)
1670-00-003-1953	Plate, side, 3 3/4-in	(2)
5365-00-007-3414	Spacer, large	(2)
1670-00-783-5988	Type IV	1
5510-00-220-6146	Lumber, 2- by 4-in:	
	24-in	4
	27-in	4
	50 1/4-in	8
5315-00-010-4659	Nail, steel wire, common, 8d	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	
	3- by 36- by 96-in:	11 sheets
	8- by 22-in	(1)
	22- by 23-in	(1)
	22- by 32-in	(3)
	22- by 36-in	(3)
	22- by 94-in	(1)
	24- by 24-in	(1)
	36- by 96-in	(8)

Table 6-2. Equipment required for rigging FARE with two 500-gallon fuel drums for low-velocity airdrop on a type V platform (continued)

National Stock Number	Item	Quantity
	Parachute:	
	Cargo:	
1670-00-269-1107	G-11A	3
1670-01-016-7841	G-11B	2
	Cargo extraction:	
1670-01-063-3715	15-ft (C-141)	1
1670-01-063-3716	22-ft (C-130)	1
	Platform, AD, type V, 12-ft:	1
	Bracket:	
1670-01-162-2375	Inside EFTA	(1)
1670-01-162-2374	Outside EFTA	(1)
1670-01-162-2372	Clevis assembly	(44)
1670-01-162-2376	Extraction bracket assembly	(1)
1670-01-162-2381	Tandem link	(4)
5530-00-128-4981	Plywood, 3/4-in:	
	22 1/2- by 48-in	(2)
	22 1/2- by 94 1/2-in	(1)
	24- by 96-in	(1)
	48- by 96-in	(2)
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo airdrop:	
	For deployment line:	
1670-00-823-5042	16-ft (3-loop), type X nylon webbing or	1
1670-01-063-7761	16-ft (2-loop), type XXVI nylon webbing	1
	For lifting and for suspension:	
1670-00-823-5041	12-ft (3-loop), type X nylon webbing or	4
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing	4
	For riser extensions:	
1670-00-823-5043	20-ft (3-loop), type X nylon webbing or	1
1670-01-062-6302	20-ft (2-loop), type XXVI nylon webbing	1
1670-00-040-8219	Strap, parachute release, multicut comes w 3 knives	2
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-ft	55
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
	Nylon:	
	Tubular:	
8305-00-082-5752	1/2-in or	As required
8305-00-268-2453	1/2-in	As required
8305-00-261-8584	Type X or	As required
8303-00-260-6890	Type X	As required

Section II

RIGGING FARE IN AN M101A1, 3/4-TON TRAILER

6-18. Description of Load

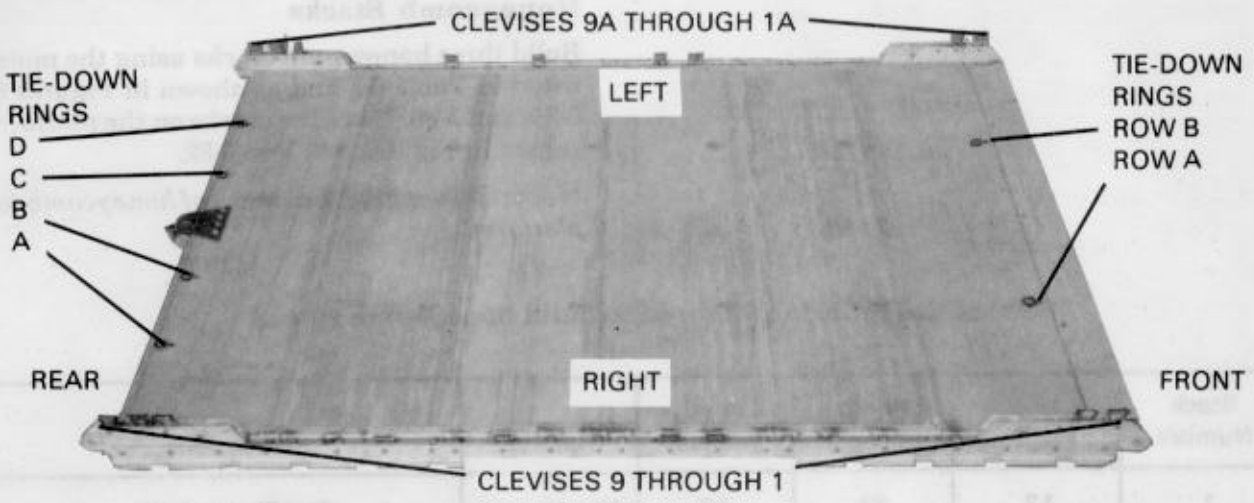
The FARE, weighing 860 pounds, is stowed as an accompanying load in the M101, M101A, or M101A1, 3/4-ton trailer. This load is rigged for low-velocity airdrop on a 12-foot, type V platform. One G-11A or one G-11B cargo parachute is used for this load. The height of the trailer is 83 inches, reducible to 51 inches. It is 71 inches wide and 147 inches long. The trailer may have an additional 640 pounds stowed in it.

6-19. Preparing Platform

Prepare a 12-foot, type V airdrop platform using four tandem links and 18 tie-down clevises as shown in Figure 6-27.

Notes: *1. The nose bumper may or may not be installed.*

2. Measurements given in this section are from the front edge of the platform, NOT from the front edge of the nose bumper.



Step:

1. Inspect, or assemble and inspect, the platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
3. Install a tandem link on the rear of each side rail using holes 22, 23, and 24.
4. Install a tie-down clevis to bushings 1 and 2 on each front tandem link.
5. Starting at the front of each platform side rail, install a tie-down clevis to the bushings bolted to holes 10, 11, 15, and 18.
6. Install a tie-down clevis to bushings 2, 3, and 4 on each rear tandem link.
7. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 9 and those bolted to the left side from 1A through 9A.
8. Starting at the front of the platform, number the two tie-down rings in the first five panels A and B from right to left. Label the four tie-down rings in the last panel A, B, C, and D from right to left. Starting with the first panel, number the tie-down rings 1 through 6.

Figure 6-27. Platform prepared

6-20. Building and Placing Honeycomb Stacks

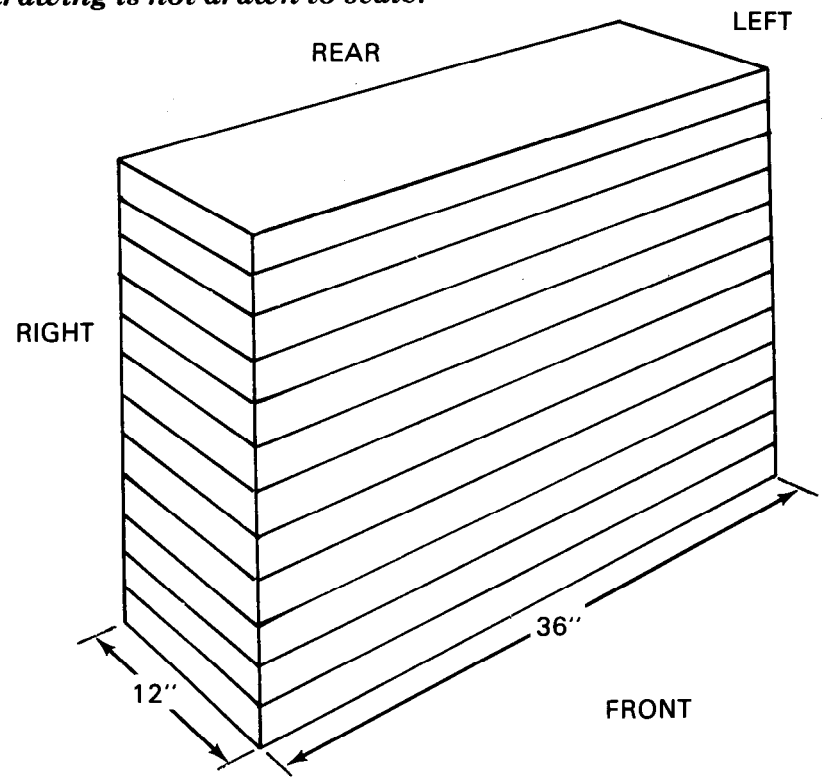
Build three honeycomb stacks using the material listed in Table 6-3 and as shown in Figures 6-28, 6-29, and 6-30. Place the stacks on the platform as shown in Figures 6-31 and 6-32.

Note: *Do not glue the stacks of honeycomb to the platform.*

Table 6-3. Material required to build honeycomb stacks

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	12	36	12	Honeycomb	See Figure 6-28.
2	7	36	12	Honeycomb	See Figure 6-29.
	4	12	12	Honeycomb	
3	8	12	32	Honeycomb	See Figure 6-30.
	1	36	12	Honeycomb	
	1	48	12	Honeycomb	
	14	12	32	Honeycomb	

Note: ***This drawing is not drawn to scale.***

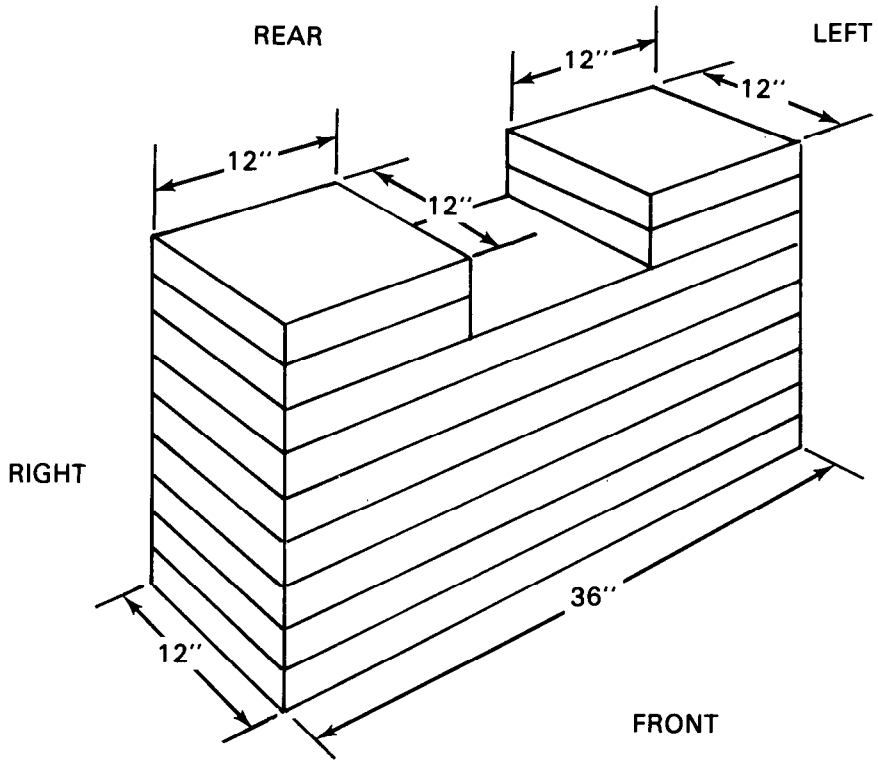


Step:

1. Place twelve 36- by 12-inch pieces of honeycomb to form a stack.

Figure 6-28. Stack 1 prepared

Note: ***This drawing is not drawn to scale.***

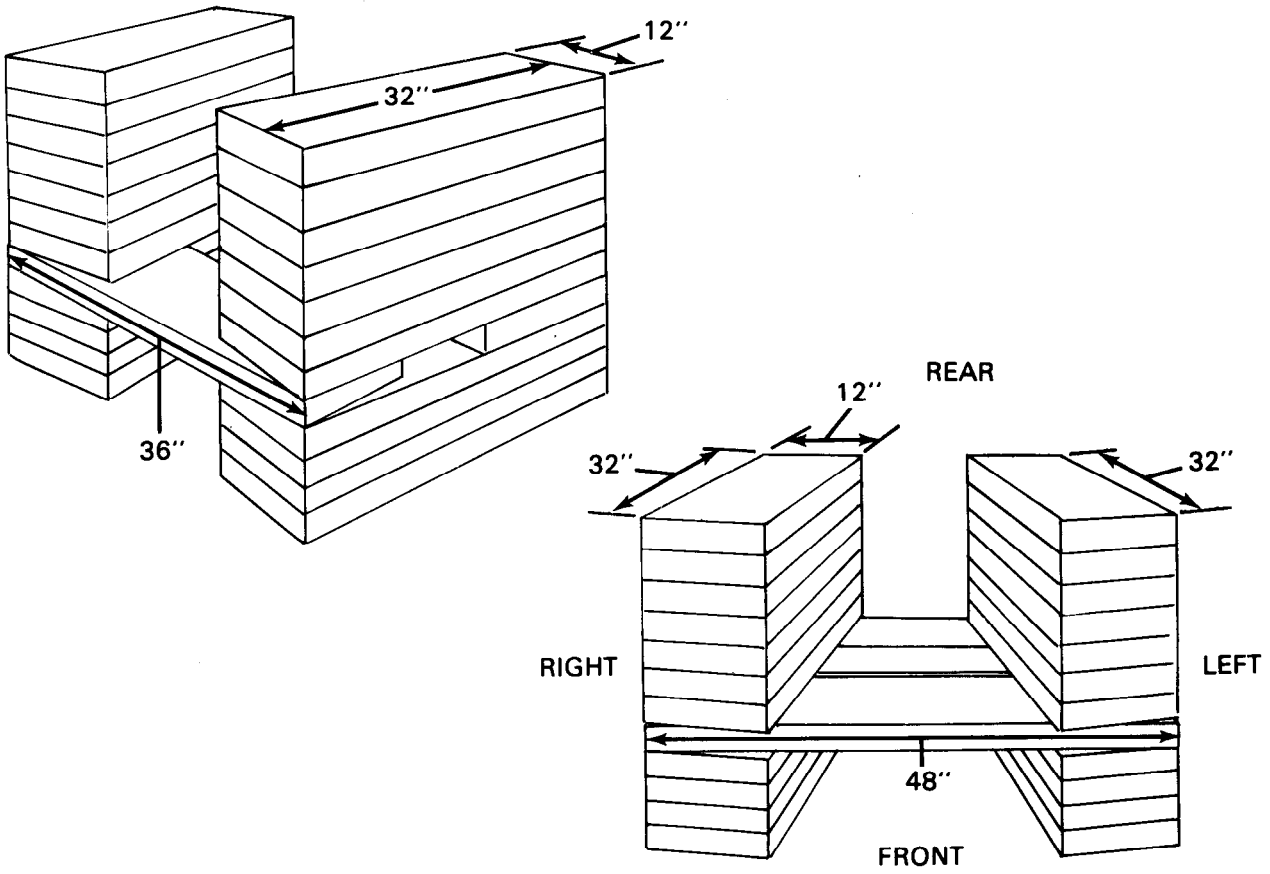


Step:

1. Form a base using seven pieces of 36- by 12-inch honeycomb.
2. Place two pieces of 12- by 12-inch honeycomb flush with each side of the base.

Figure 6-29. Stack 2 prepared

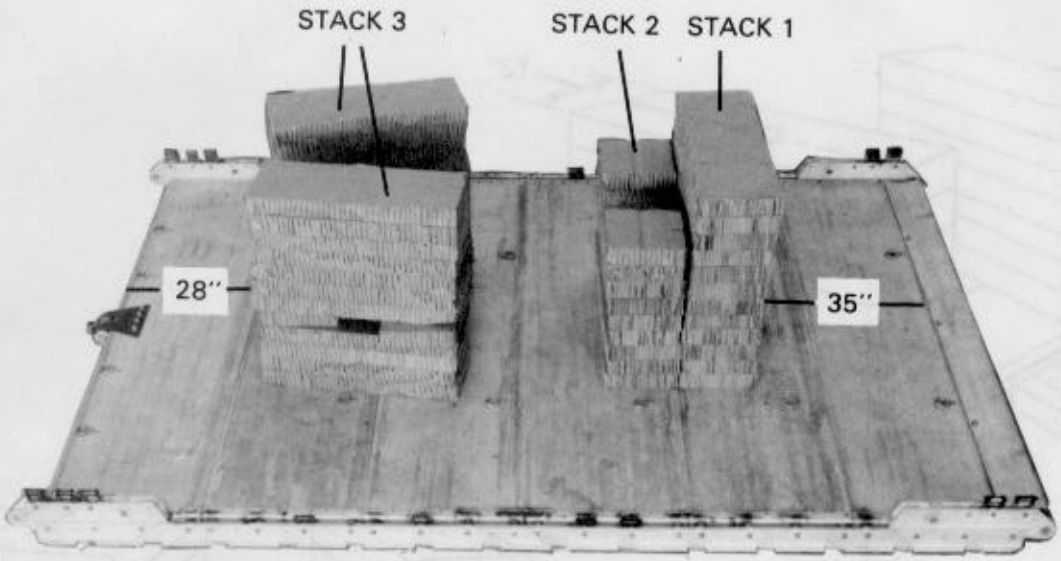
Note: ***These drawings are not drawn to scale.***



Step:

1. Make two stacks using eight 12- by 32-inch pieces of honeycomb to form a base.
2. Angle the base stacks so that the rear inside edges are 12 inches apart, and the front inside edges are 24 inches apart.
3. Form a bridge by placing a 36- by 12-inch piece of honeycomb on top of the base stacks so that the outside edges are aligned with the rear of the base stacks.
4. Place a 48- by 12-inch piece of honeycomb on top of the base stacks so that the outside edges are aligned with the front of the base stacks.
5. Make two stacks using fourteen 12- by 32-inch pieces of honeycomb. Place each stack on the bridge and flush with the base stack.

Figure 6-30. Stack 3 prepared



Stack Number	Position on Platform
1 2 3	Place stack: Centered 35 inches from the front edge of the platform. Centered flush against stack 1. Centered with outside corner 28 inches from the rear edge of the platform.

Figure 6-31. Honeycomb stacks placed on platform

Note: ***These drawings are not drawn to scale.***

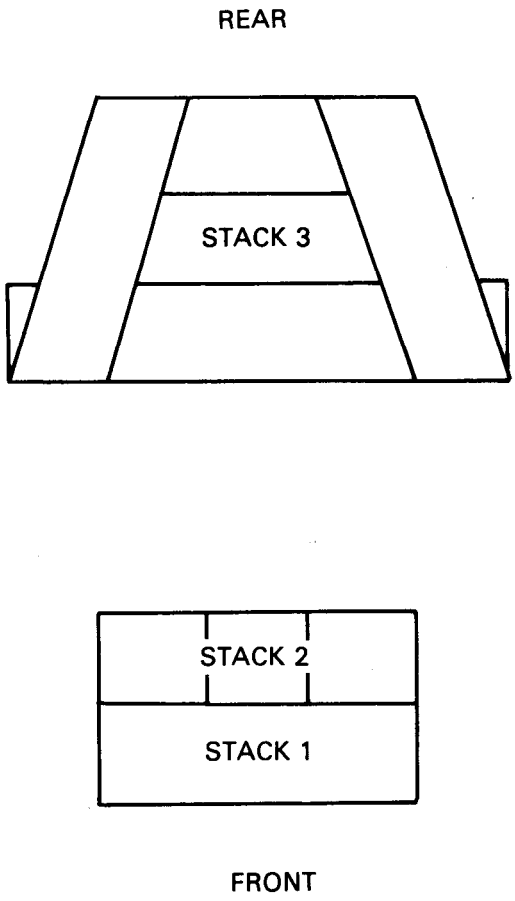
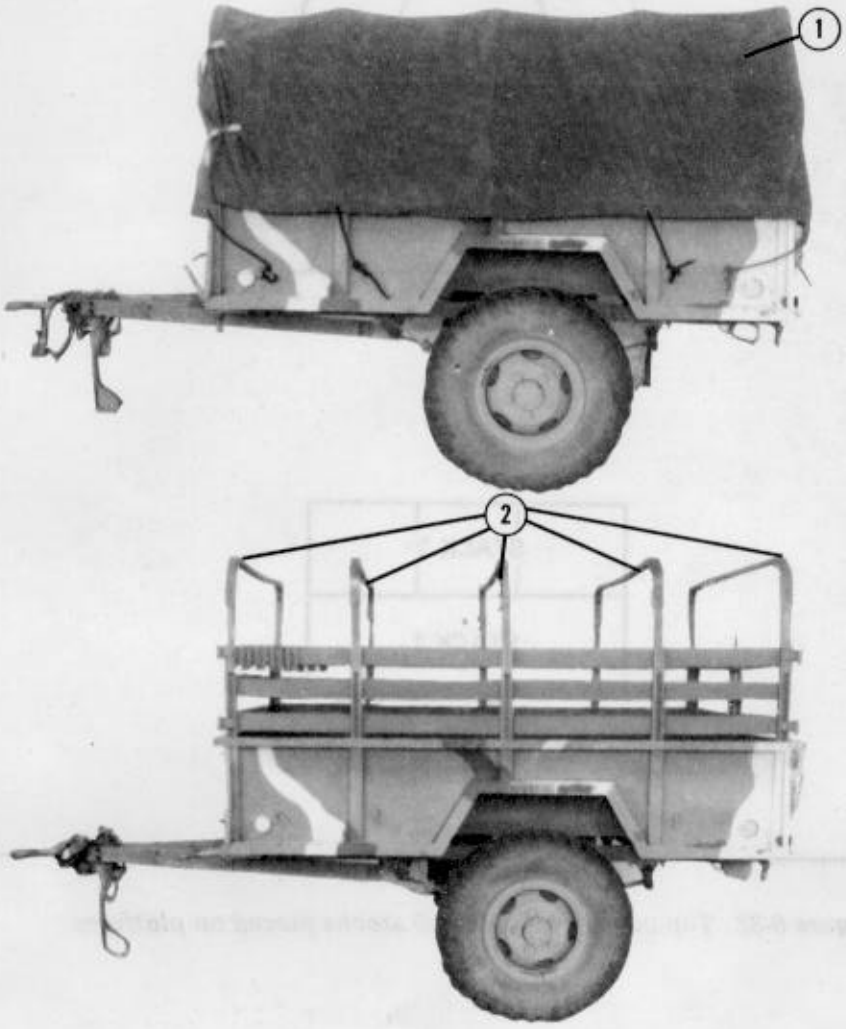


Figure 6-32. Top view of honeycomb stacks placed on platform

6-21. Preparing Trailer

Prepare the trailer as described below.

a. Removing Components. Remove the components from the trailer as shown in Figure 6-33.

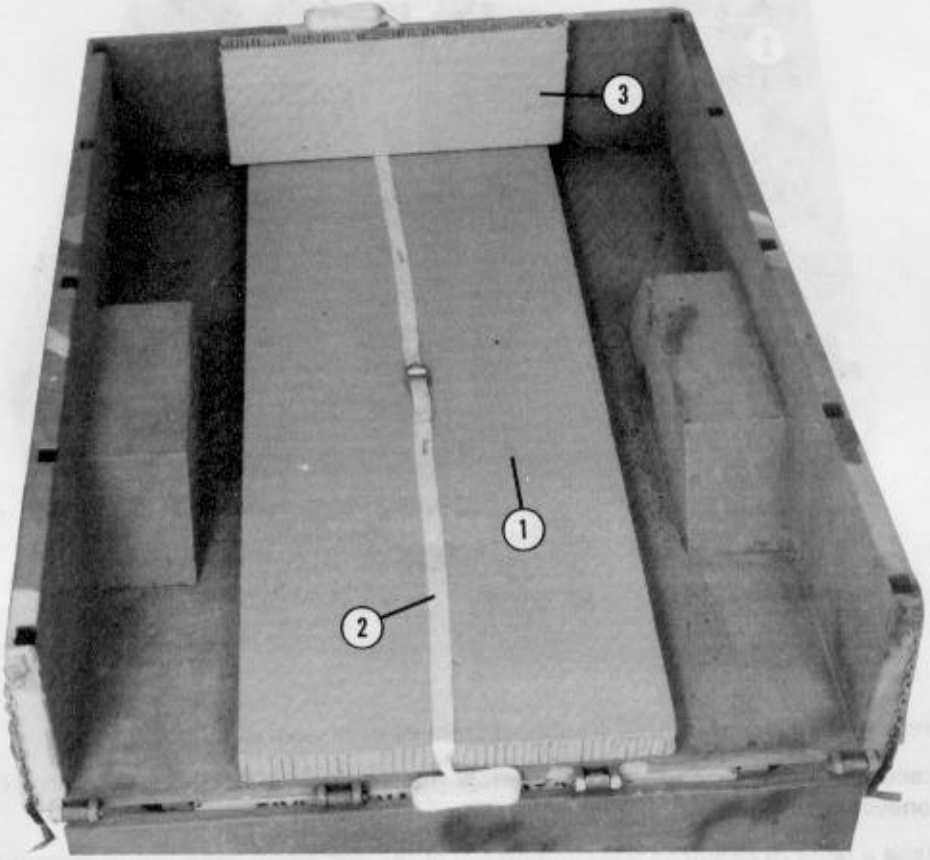


(1) See TM 9-2330-202-14&P for the removal of the trailer components (not shown). Remove the tarpaulin from the trailer, and place it aside for later use.

(2) Remove the bows from the side racks, then remove the side racks from the trailer. Place these items aside to be placed in the trailer later.

Figure 6-33. Trailer components removed

b. Preparing Trailer Before Positioning. Prepare the trailer, and place the components of the FARE in the cargo bed as shown in Figures 6-34 through 6-42.

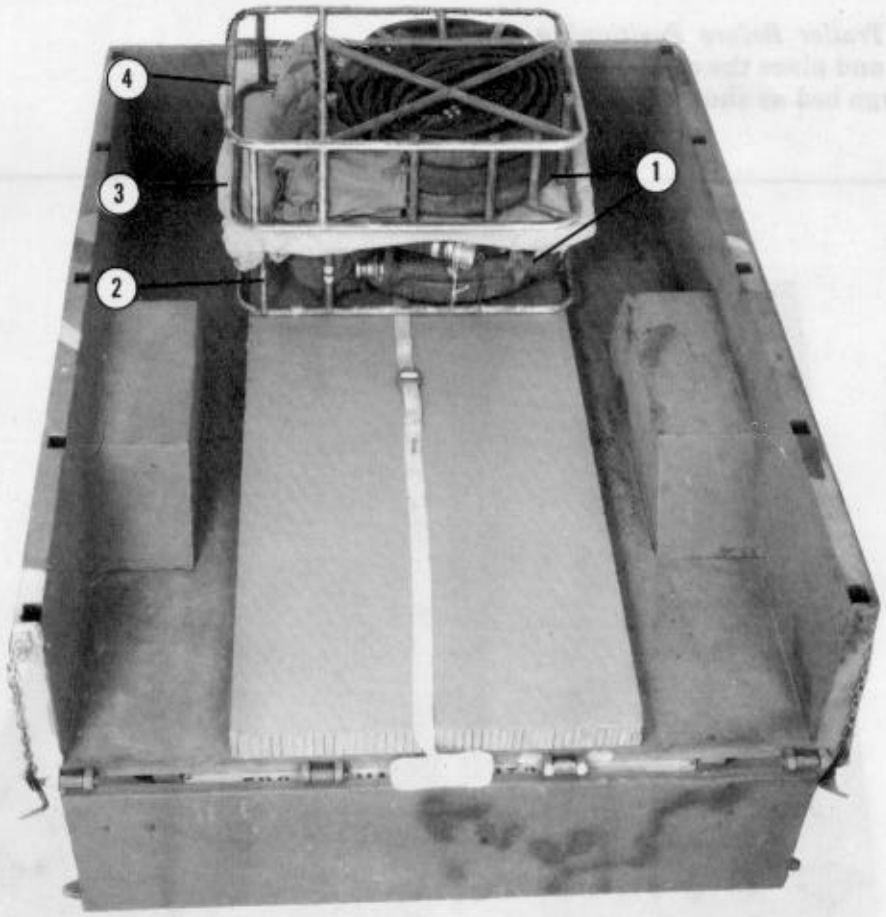


(1) Center a 36- by 96-inch piece of honeycomb in the trailer cargo bed.

(2) Form a 30-foot lashing. Center the lashing on the honeycomb.

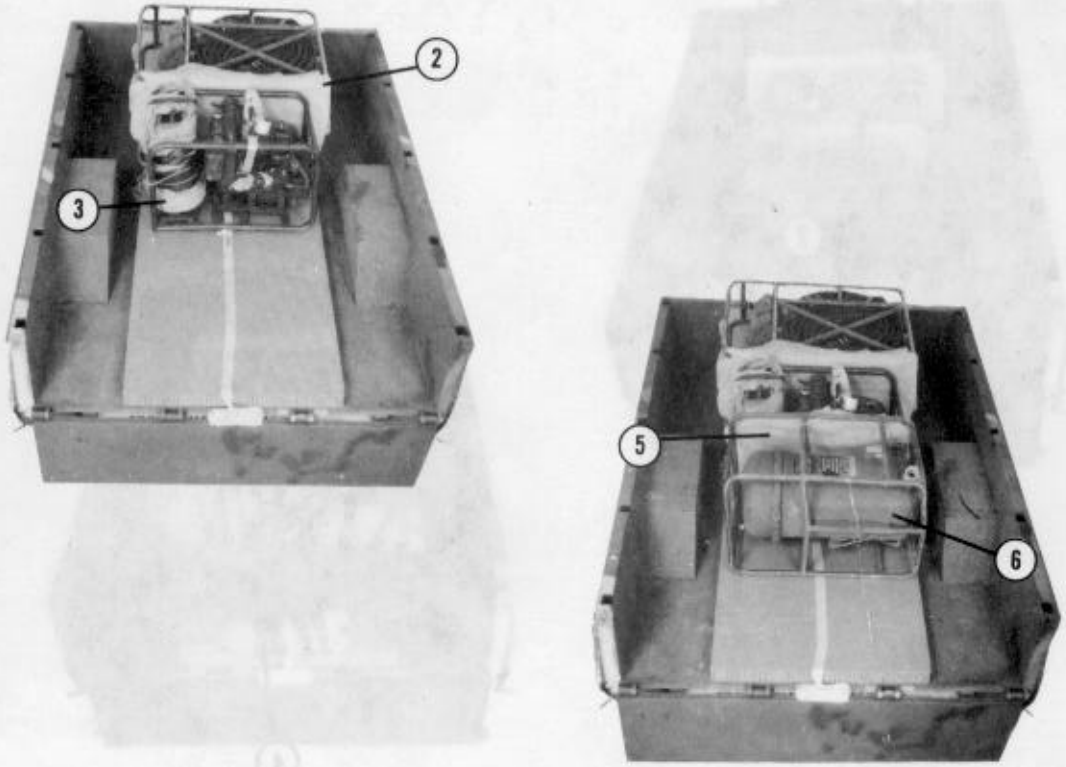
(3) Center a 18- by 36-inch piece of honeycomb against the front wall of the cargo bed.

Figure 6-34. Honeycomb placed in cargo bed



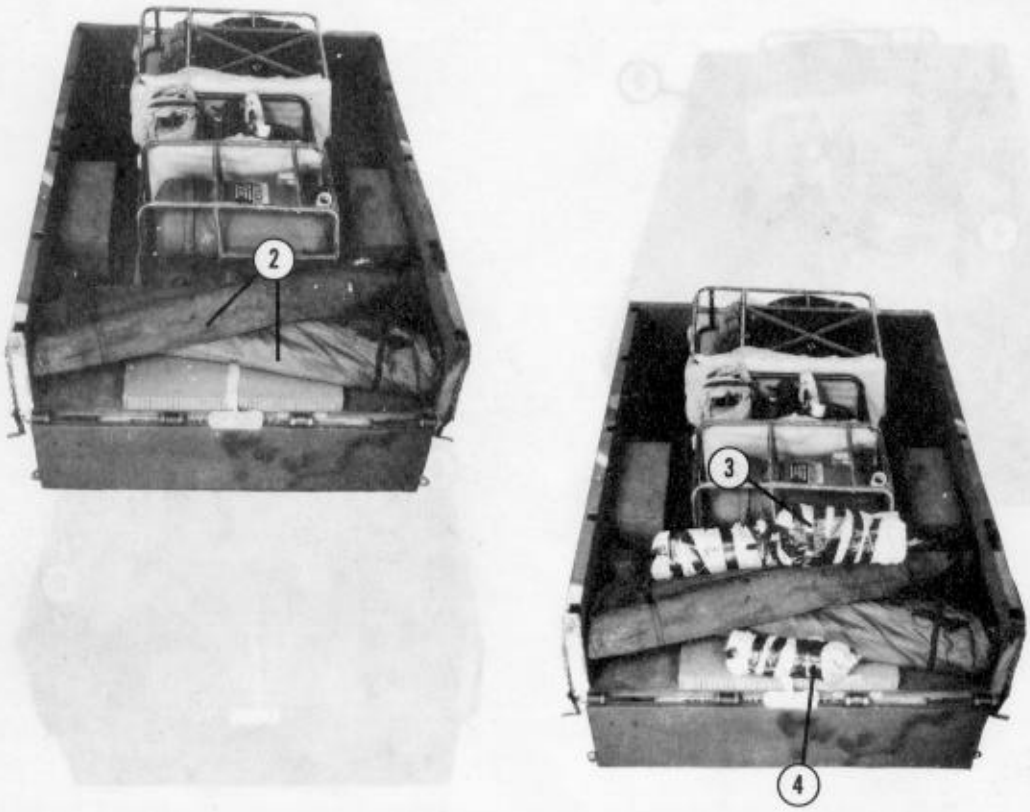
1. Prepare the discharge hose frame assemblies as shown in Figure 6-7.
2. Place a discharge hose frame assembly flush against the 18- by 36-inch piece of honeycomb.
3. Place a layer of cellulose wadding on top of the discharge hose frame assembly.
4. Place another discharge hose frame assembly on top of the cellulose wadding and flush against the 18- by 36-inch piece of honeycomb.

Figure 6-35. Discharge hose frame assemblies placed on honeycomb



1. Prepare the pump/engine assembly (not shown) according to Figure 6-9.
2. Place a layer of cellulose wadding against the discharge hose frame assembly.
3. Place the pump/engine assembly flush against the discharge hose frame assembly.
4. Prepare the filter/separator assembly (not shown) according to Figure 6-8.
5. Place a layer of cellulose wadding against the pump/engine assembly.
6. Place the filter/separator assembly flush against the pump/engine assembly.

Figure 6-36. Pump/engine and filter/separator assemblies placed on honeycomb



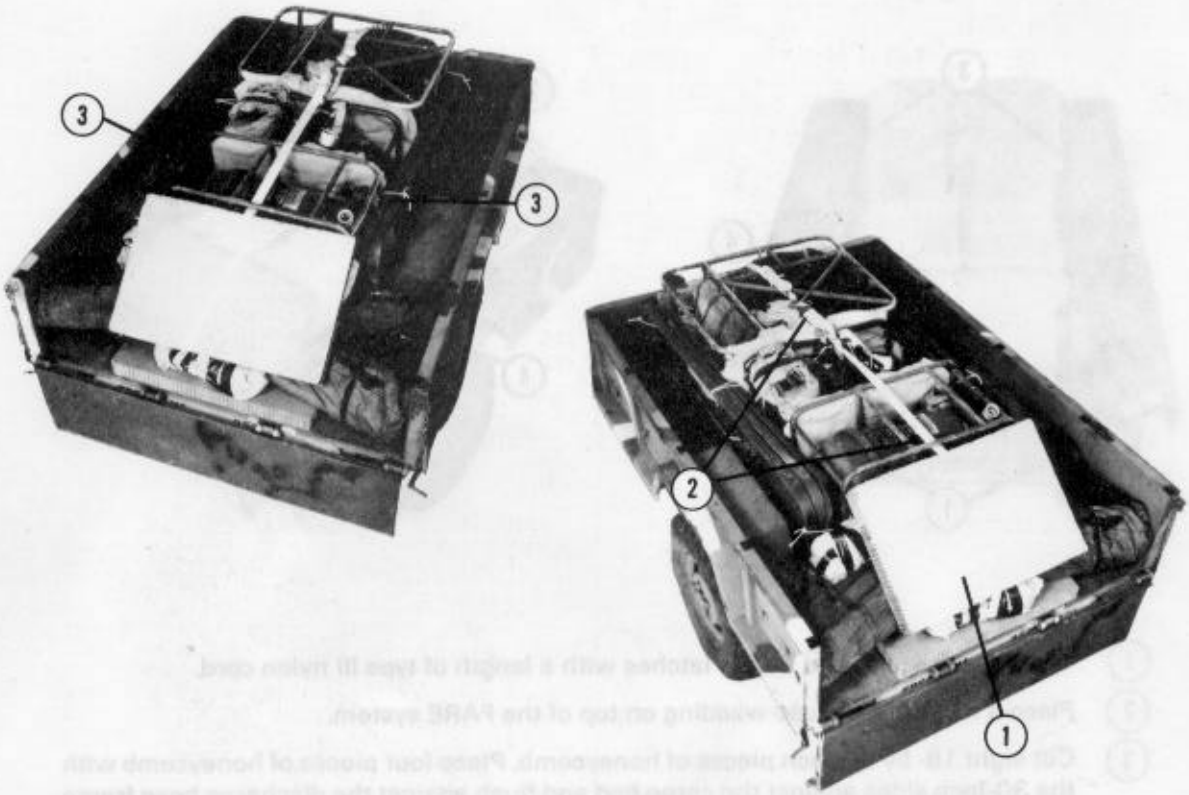
(1) Prepare the components of the grounding rods and suction hose kits (not shown) according to Figure 6-12.

(2) Place two kits across each other next to the filter/separator assembly.

(3) Wrap two fire extinguishers in cellulose wadding, and place them on top of the suction hose kits. Tie the fire extinguishers to the frame of the filter/separator with a length of type III nylon cord.

(4) Wrap a fire extinguisher in cellulose wadding. Place it on the honeycomb behind the suction hose kits.

Figure 6-37. Ground rods, suction hose kits, and fire extinguishers placed on honeycomb

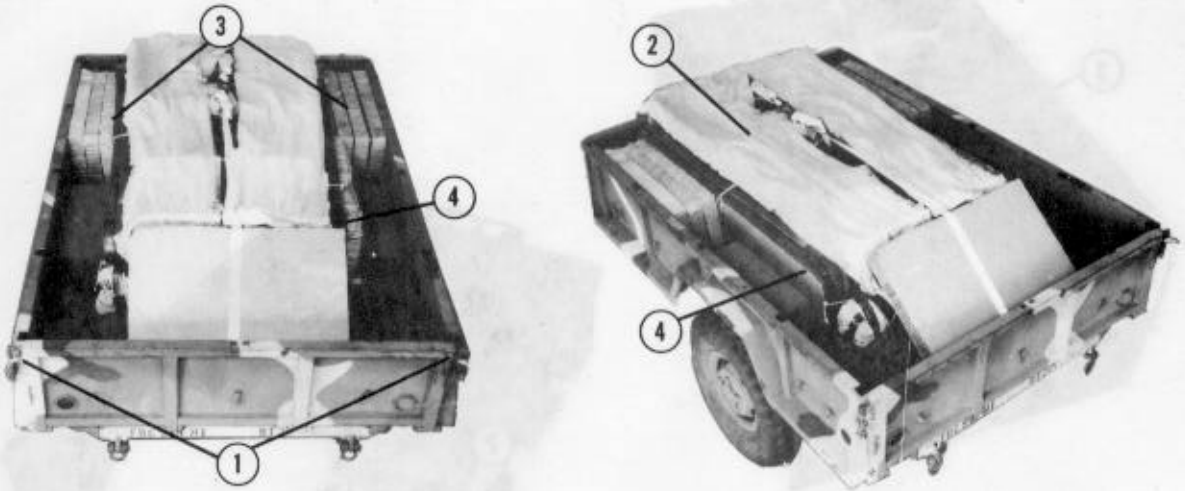


(1) Cover the fire extinguishers with a 24- by 36-inch piece of honeycomb.

(2) Pass one end of the pre-positioned lashing over the honeycomb, under one bar of the filter/separator frame, and over the pump/engine assembly frame. Pass the other end of the lashing through the discharge hose frame assembly. Bind the ends with D-rings and a load binder.

(3) Set two bows on the right side and two on the left side of the trailer. Use a length of type III nylon cord to tie the bows in place to the filter/separator frame, the pump/engine assembly frame, and the discharge hose frame.

Figure 6-38. Lashing secured and bows tied in place



(1) Close the tailgate, and tie the latches with a length of type III nylon cord.

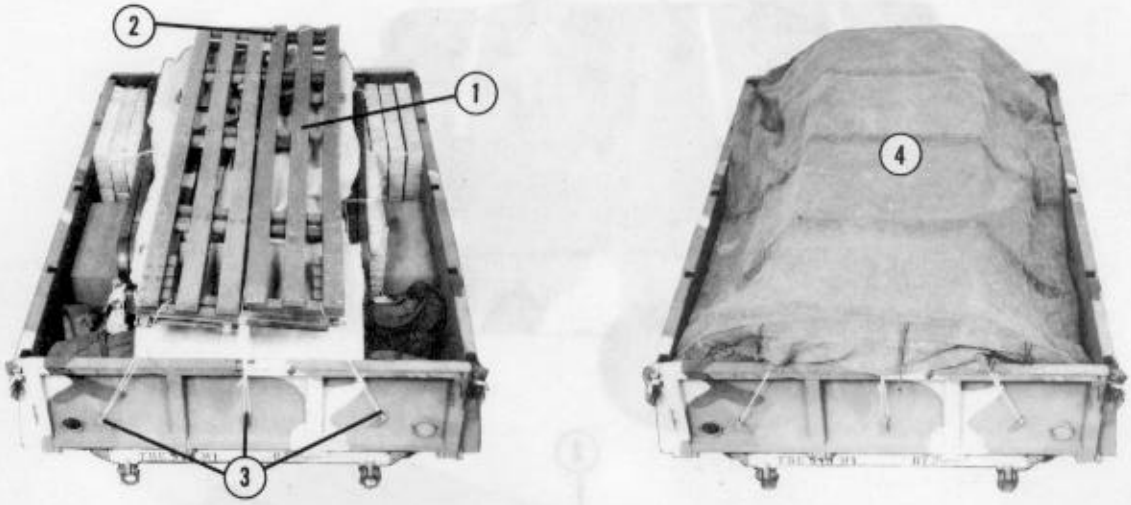
(2) Place a layer of cellulose wadding on top of the FARE system.

(3) Cut eight 18- by 30-inch pieces of honeycomb. Place four pieces of honeycomb with the 30-inch sides against the cargo bed and flush against the discharge hose frame assemblies.

Note: ***The fourth piece of honeycomb is not seen since it is placed under the right or left set of bows against the discharge hose frame assemblies.***

(4) Cut two 18- by 30-inch pieces of honeycomb. Place one piece of honeycomb with the 30-inch side against the cargo bed and between the wheel well and filter/separator frame. Repeat for the other side.

Figure 6-39. Tailgate secured and filler honeycomb placed in cargo bed



(1) Interlock the side rails together, and place them on top of the cellulose wadding.

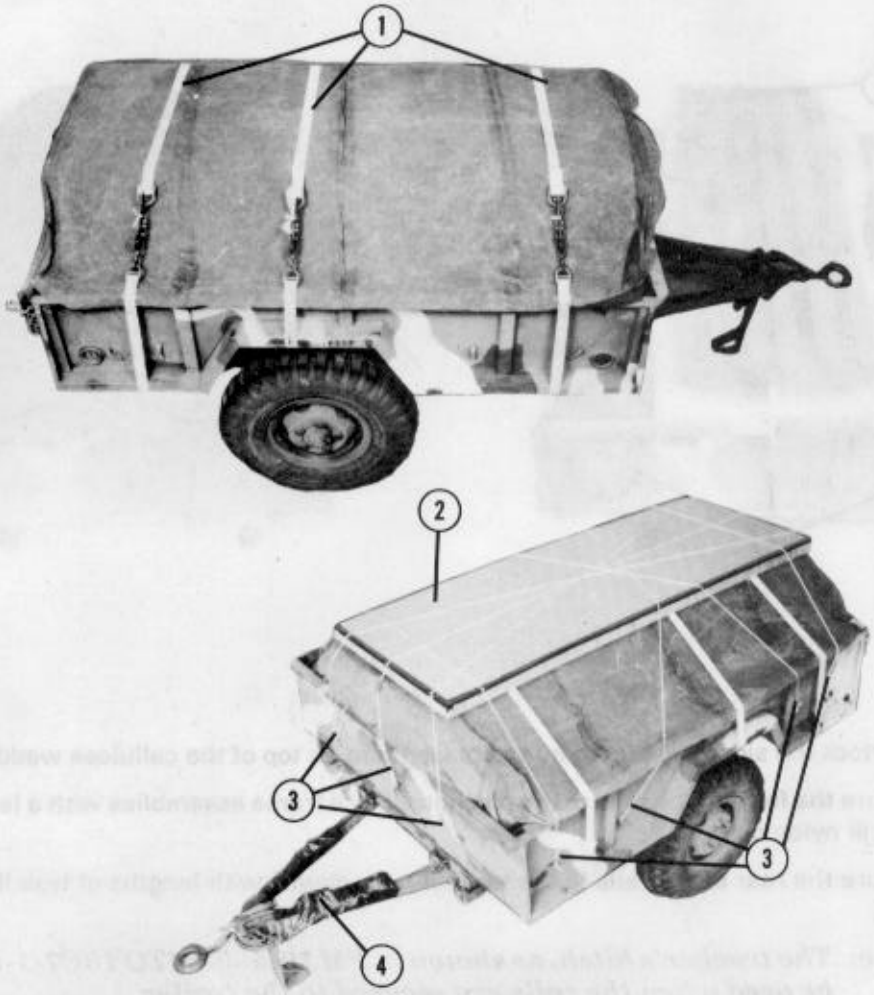
(2) Secure the front of the rails to the discharge hose frame assemblies with a length of type III nylon cord.

(3) Secure the rear of the rails to the tarpaulin tie-downs with lengths of type III nylon cord.

Note: ***The trucker's hitch, as shown in FM 10-500-2/TO 13C7-1-5, will be used when the rails are secured to the trailer.***

(4) Cover the FARE components with the trailer tarpaulin.

Figure 6-40. Side rails and tarpaulin secured to trailer



(1) Pass a 15-foot lashing around the body and frame of the front, center, and rear of the trailer. Secure the ends on the right side of the trailer with D-rings and load binders.

(2) Tape the edges of a 36- by 96-inch piece of honeycomb with cloth-backed tape. Center the honeycomb on top of the tarpaulin.

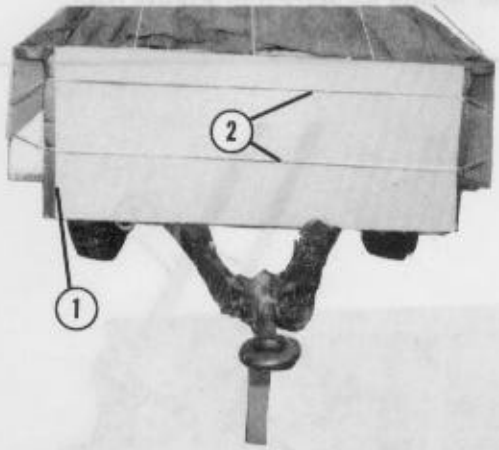
(3) Secure the honeycomb in place with lengths of type III nylon cord. Tie the ends of the nylon cord to the tarpaulin tie-downs.

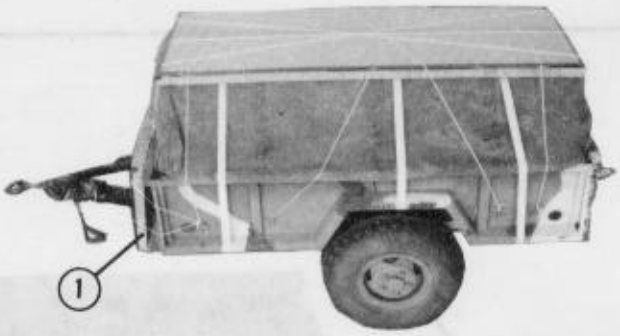
(4) Secure the safety chains and intervehicular cable to the drawbar frame with cloth-backed tape.

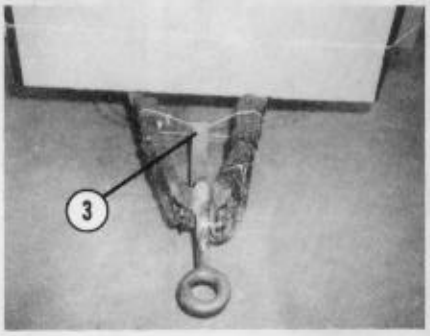
Figure 6-41. FARE lashed to trailer and chains secured

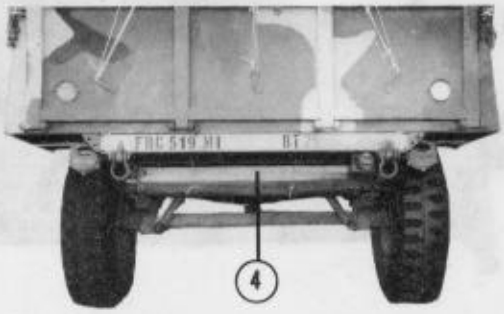
CAUTION

The brake must be in the OFF position before the honeycomb can be installed.









1. Cut a 24- by 60-inch piece of honeycomb. Tape the 24-inch sides with cloth-backed tape. Place the honeycomb on the drawbar.
2. Secure the honeycomb in place with two lengths of type III nylon cord. Tie the ends of the nylon cord to the tarpaulin tie-downs.
3. Secure the support stand in the UP position with a length of type III nylon cord. Make sure the locking pin is in the LOCK position.
4. Place two 2- by 12- by 46-inch pieces of lumber between the leaf springs and frame and against the shackle bolts. Tie the lumber to the frame with two lengths of type III nylon cord.

Figure 6-42. Support stand and leaf springs secured

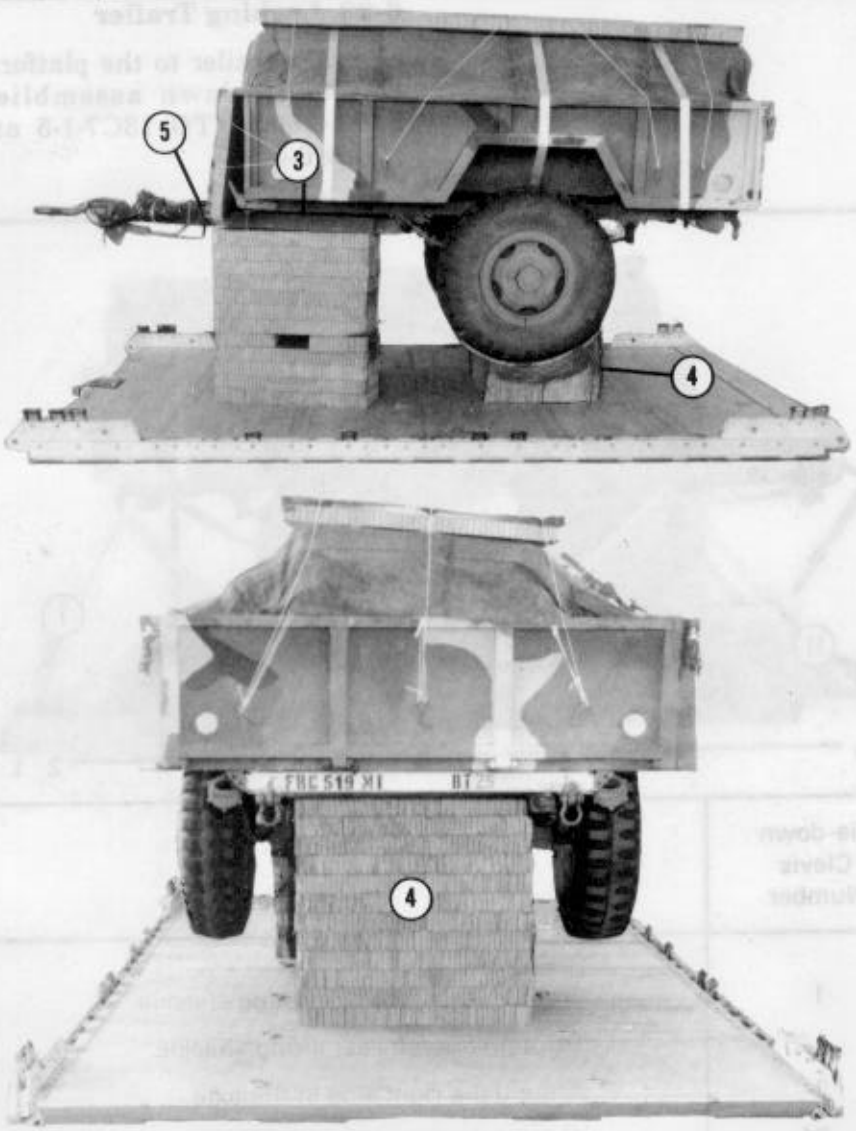
6-22. Positioning Trailer

Position the trailer on the honeycomb stacks using three medium suspension clevises; two 11-foot (2-loop), type XXVI nylon webbing slings; and one 12-foot (2-loop), type XXVI nylon webbing sling for lifting as shown in Figure 6-43.

(1) Bolt a 12-foot (2-loop), type XXVI nylon webbing sling to the lunette with a medium clevis.

(2) Bolt an 11-foot (2-loop), type XXVI nylon webbing sling to each rear lifting provision with a medium clevis.

Figure 6-43. Trailer positioned



(3) Set the trailer on the honeycomb with the frame support board on stack 3.

(4) Set the axle on stack 2.

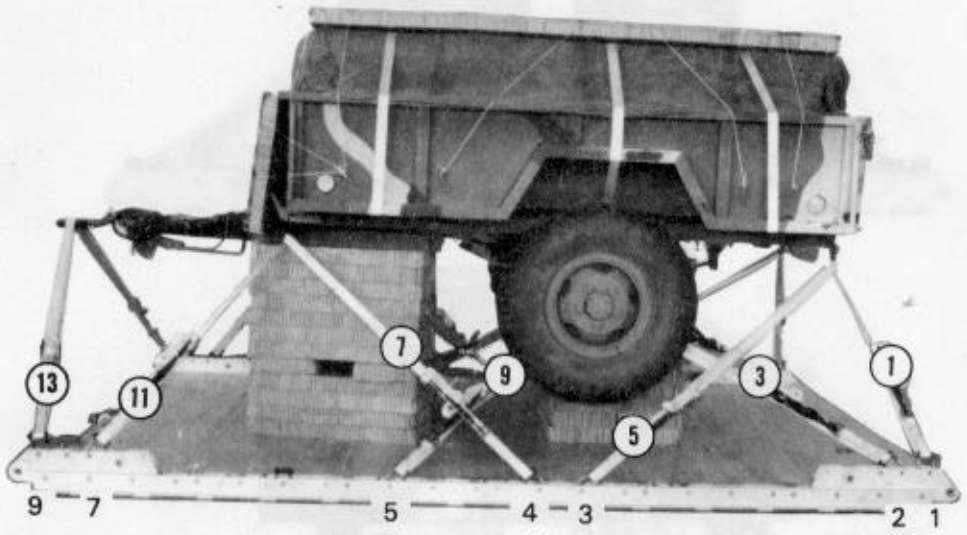
(5) Set the drawbar on stack 3.

(6) Remove the lifting slings (not shown).

Figure 6-43. Trailer positioned (continued)

6-23. Lashing Trailer

Lash the trailer to the platform using fourteen 15-foot tie-down assemblies according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-44.

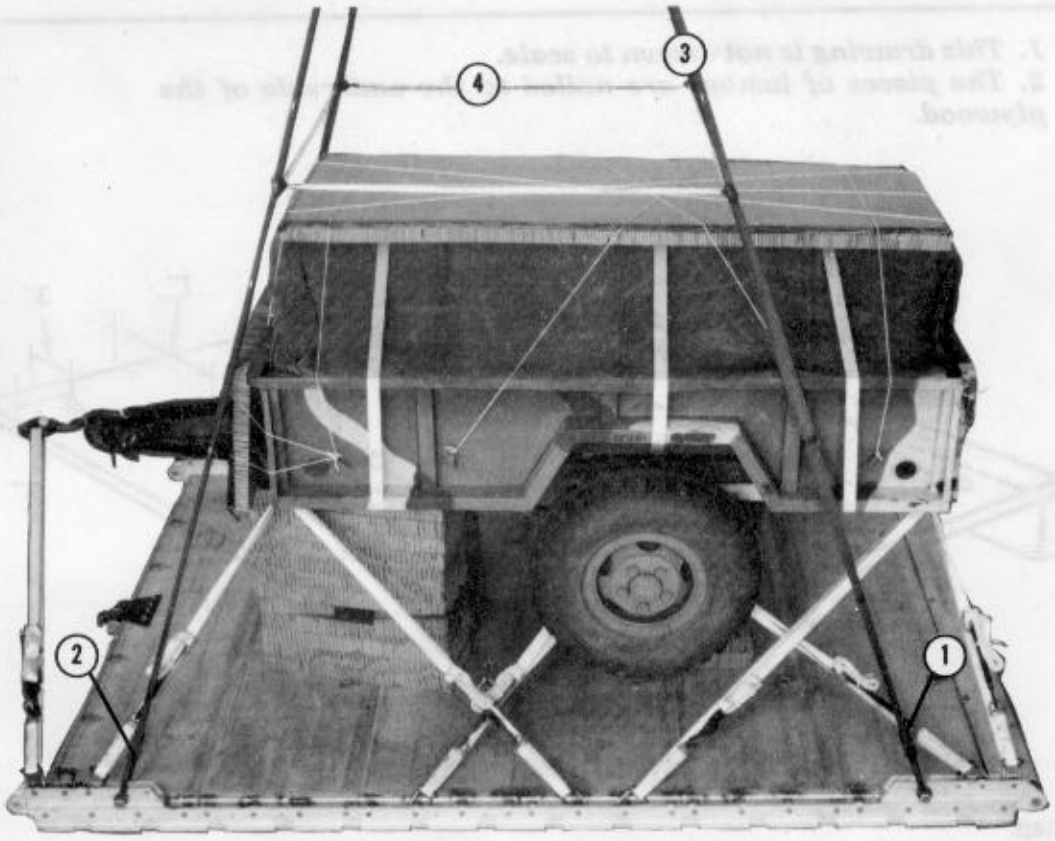


Lashing Number	Tie-down Clevis Number	Instructions
		Pass lashing:
1	1	Through the right rear lifting shackle.
2	1A	Through the left rear lifting shackle.
3	2	Around the right side of the axle.
4	2A	Around the left side of the axle.
5	3	Through the right rear lifting shackle.
6	3A	Through the left rear lifting shackle.
7	4	Through the right front lifting shackle.
8	4A	Through the left front lifting shackle.
9	5	Around the right side of the axle.
10	5A	Around the left side of the axle.
11	7	Through the right front lifting shackle.
12	7A	Through the left front lifting shackle.
13	9	Through the right side of the lunette.
14	9A	Through the left side of the lunette.

Figure 6-44. Trailer lashed to platform

6-24. Installing Suspension Slings

Use four large suspension clevises and four 16-foot (2-loop), type XXVI nylon webbing slings for suspension. Bolt and safety the slings to the trailer as shown in Figure 6-45.



(1) Bolt a 16-foot (2-loop), type XXVI nylon webbing sling to each of the front tandem links with a large suspension clevis.

(2) Bolt a 16-foot (2-loop), type XXVI nylon webbing sling to each of the rear tandem links with a large suspension clevis.

(3) Raise the suspension slings to their full length with a lifting provision.

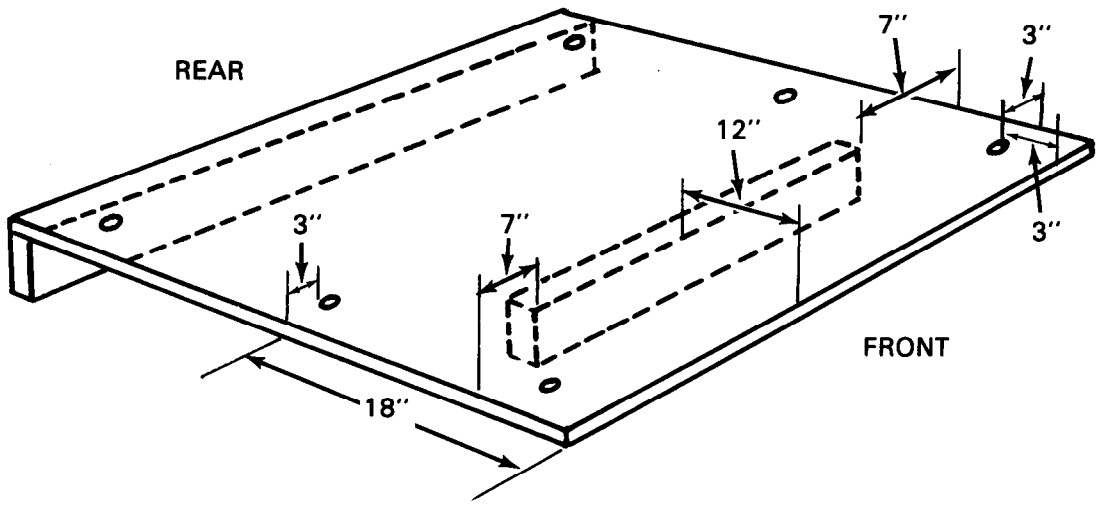
(4) Safety the suspension slings with a deadman's tie according to FM 10-500-2/TO 13C7-1-5.

Figure 6-45. Suspension slings installed

6-25. Building and Installing Cargo Parachute Stowage Platform

Build the parachute stowage platform using a 3/4- by 36- by 36-inch piece of plywood, a 2- by 4- by 36-inch piece of lumber, a 2- by 4- by 22-inch piece of lumber, and eightpenny nails as shown in Figure 6-46. Install the parachute stowage platform using four 15-foot tie-down assemblies and as shown in Figure 6-47.

Notes: ***1. This drawing is not drawn to scale.***
2. The pieces of lumber are nailed to the underside of the plywood.

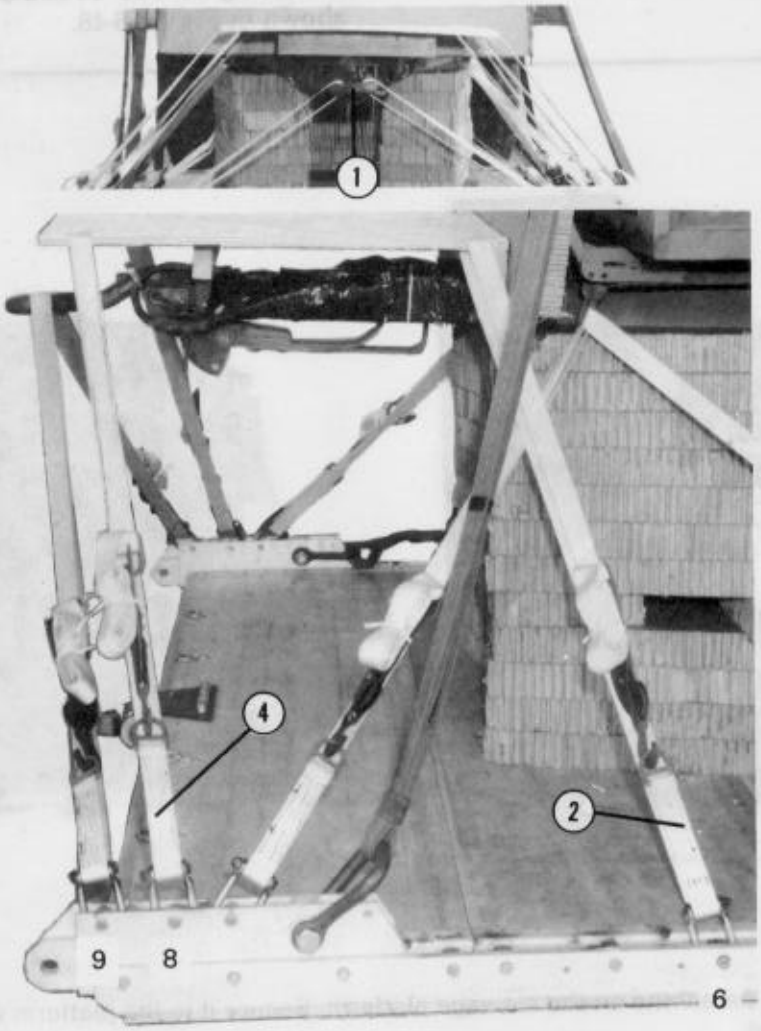


Step:

1. Drill a 2-inch-diameter hole 3 inches from each corner of the 3/4- by 36- by 36-inch plywood.
2. Drill a 2-inch-diameter hole centered 3 inches from the side of the plywood.
3. Place the 2- by 4- by 36-inch lumber on its 2-inch side. Place the lumber on the rear edge of the plywood. Use eightpenny nails to nail the lumber to the plywood.
4. Place the 2- by 4- by 22-inch lumber on its 2-inch side. Center the lumber 12 inches from the front edge of the plywood and 7 inches from each side. Use eightpenny nails to nail the lumber to the plywood.

Figure 6-46. Parachute stowage platform built

Note: ***Do not tighten the lashing so tight that the plywood bows.***

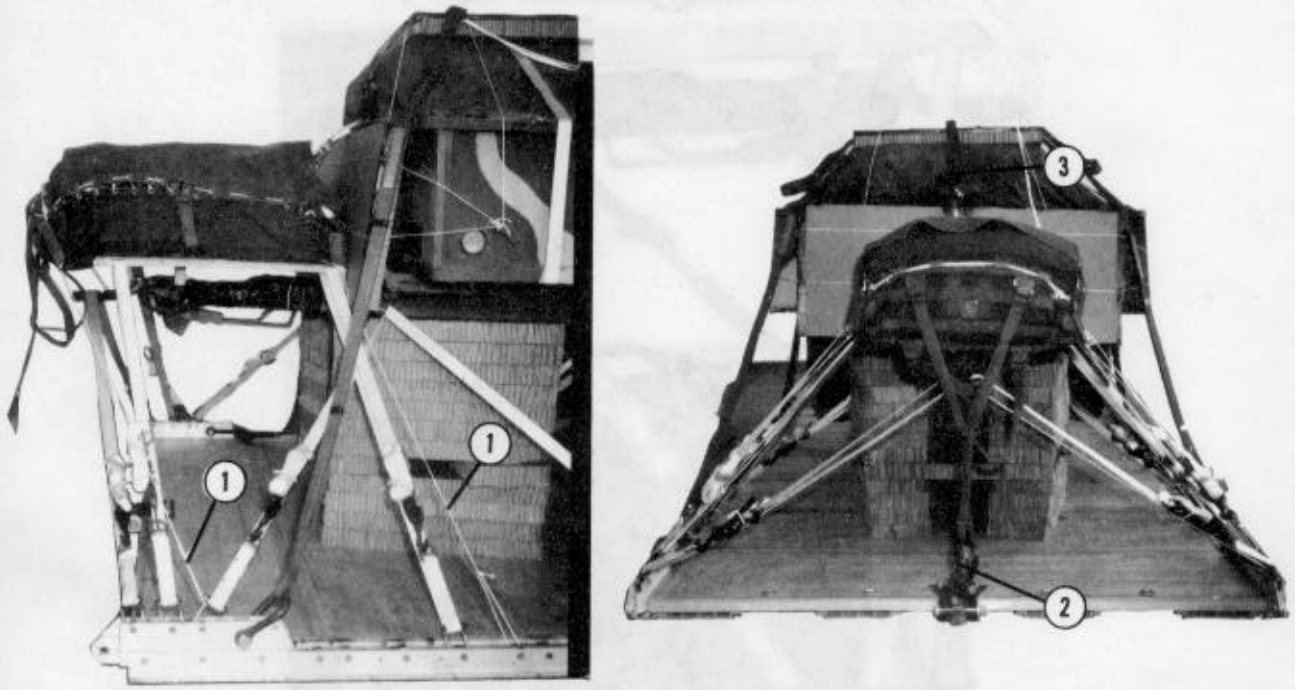


1. Center the parachute stowage platform on the trailer drawbar.
2. Pass a 15-foot lashing from clevis 6 up through the front hole in the parachute stowage platform. Secure the lashing with a D-ring and a load binder.
3. Repeat step 2 above for clevis 6A (not shown).
4. Pass a 15-foot lashing from clevis 8 up through the rear hole in the parachute stowage platform. Secure the lashing with a D-ring and a load binder.
5. Repeat step 4 above for clevis 8A (not shown).

Figure 6-47. Parachute stowage tray installed

6-26. Stowing Cargo Parachute

Stow one G-11A or one G-11B cargo parachute according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-48.



(1) Place the parachute on the stowage platform. Secure it to the platform with type III nylon cord.

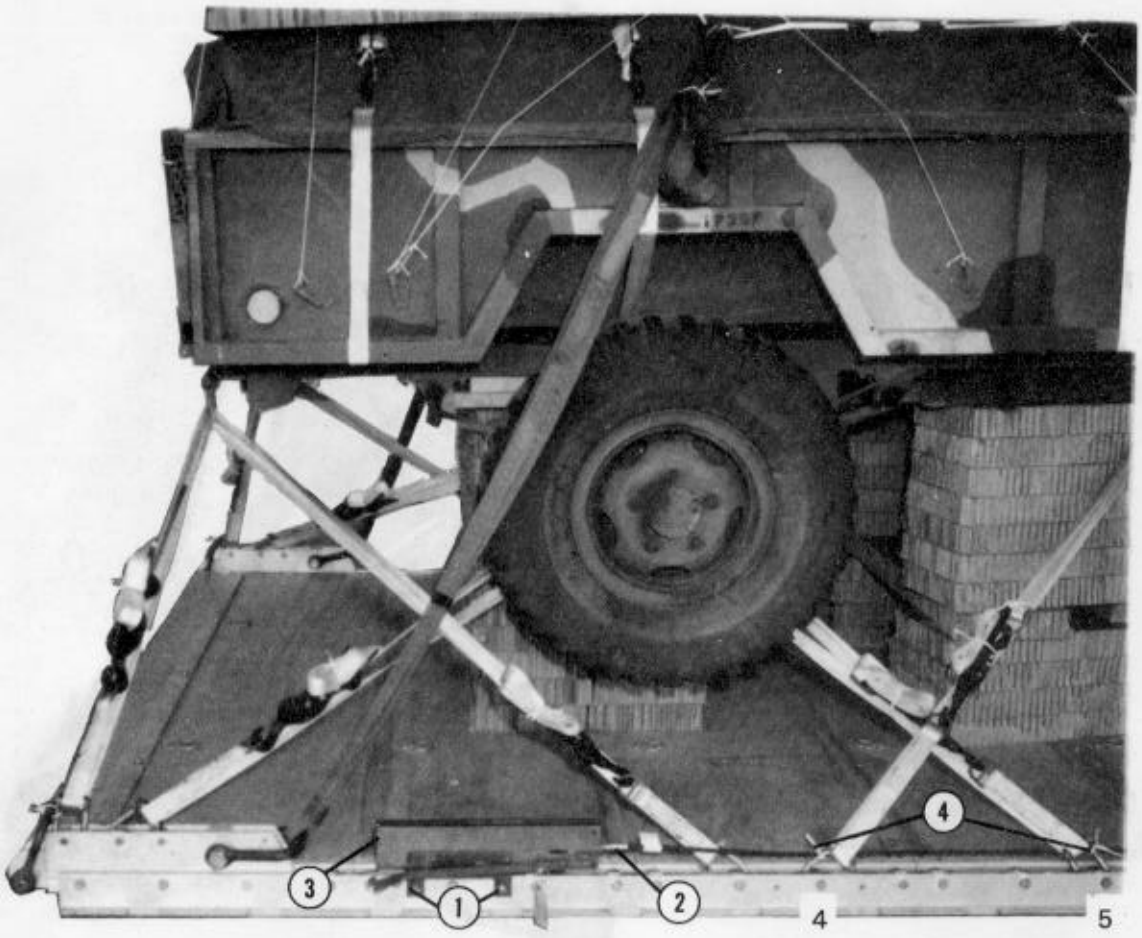
(2) Attach a large clevis to the bridle of the parachute.

(3) Attach a 3-foot (2-loop), type XXVI nylon webbing sling to the parachute attaching clevis.

Figure 6-48. Cargo parachute stowed

6-27. Installing Extraction System

Install the EFTC extraction system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-49.



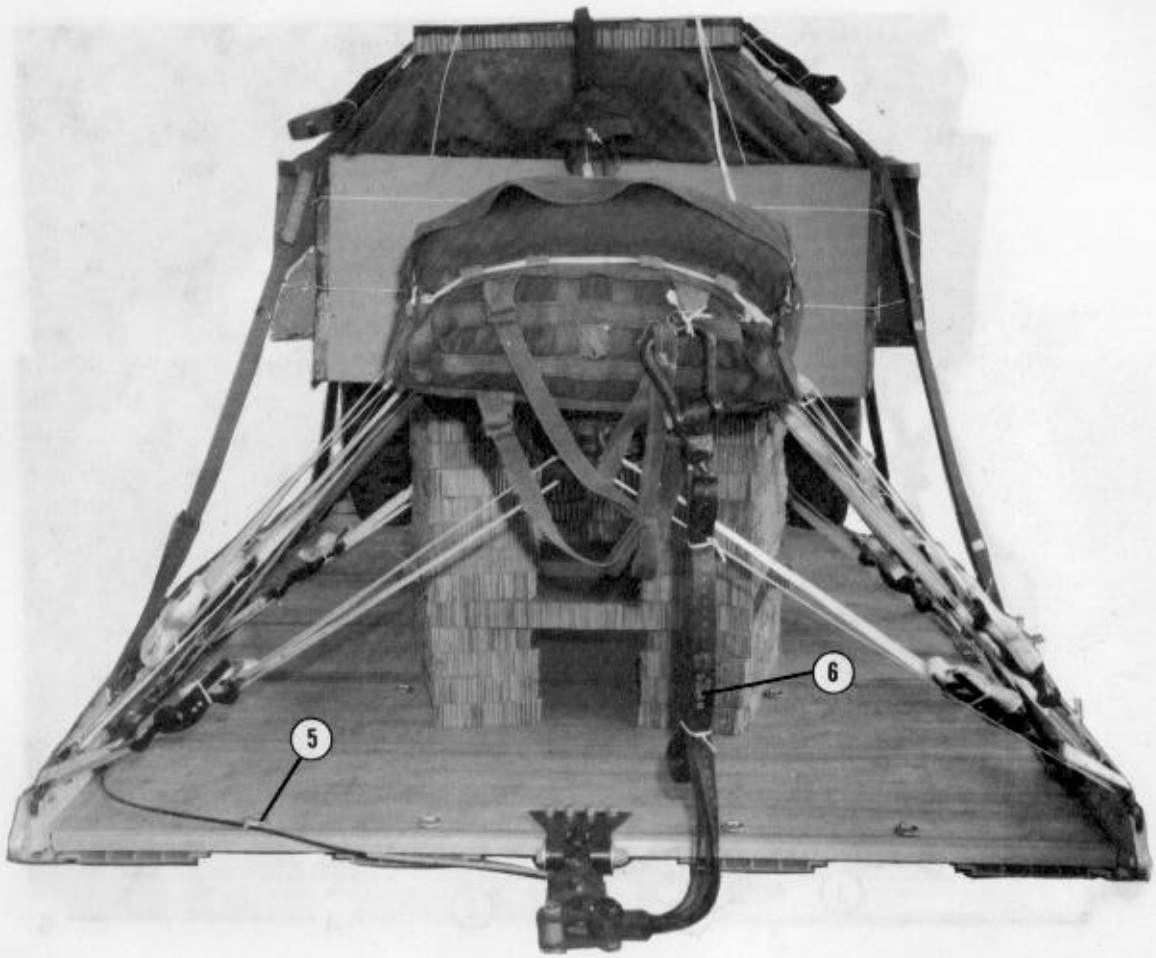
(1) Bolt the actuator bracket to the front EFTC mounting holes on the left platform side rail.

(2) Install a 12-foot cable to the actuator assembly.

(3) Bolt the actuator assembly to the actuator mounting brackets.

(4) Route the cable along the left rail to the rear of the platform. Tie the cable to clevises 4 and 5 with type I, 1/4-inch cotton webbing.

Figure 6-49. EFTC installed



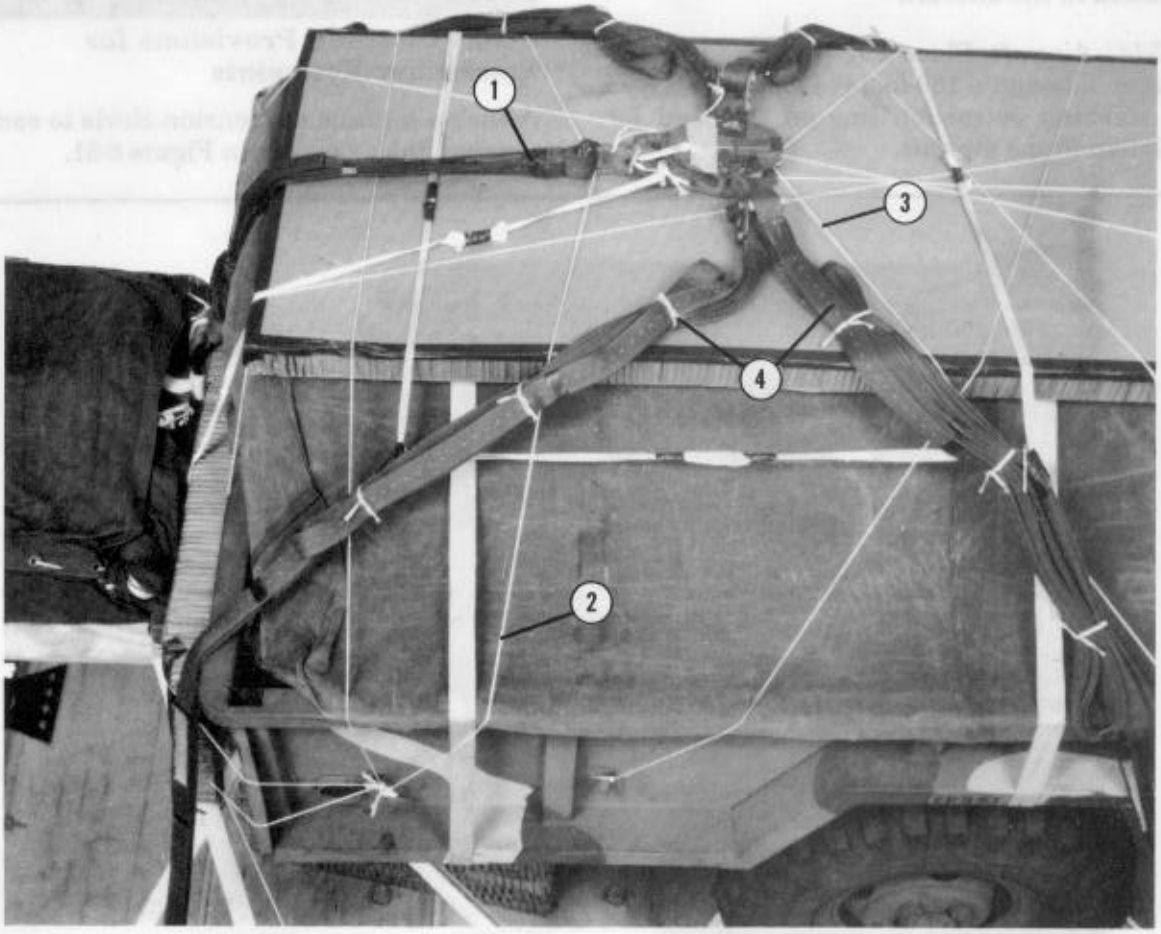
(5) Tie the cable to tie-down ring D6 with type I, 1/4-inch cotton webbing. Bolt the latch assembly to the extraction link as shown in FM 10-500-2/TO 13C7-1-5.

(6) Use a 9-foot (2-loop), type XXVI nylon webbing sling for the deployment line.

Figure 6-49. EFTC installed (continued)

6-28. Installing Parachute Release System

Prepare and install the M-1 release assembly according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-50.



(1) Attach the pre-positioned 3-foot sling to the M-1 release. Place the release on the honeycomb.

(2) Secure the release to the tarpaulin tie-downs at the front of the trailer with type III nylon cord.

(3) Secure the release to the tarpaulin tie-downs at the rear of the trailer with type III nylon cord.

(4) Attach the 16-foot (3-loop), type X or (2-loop), type XXVI nylon webbing suspension slings to the release. S-fold and tie the slings in place with type I, 1/4-inch cotton webbing as outlined in FM 10-500-2/TO 13C7-1-5.

Figure 6-50. M-1 cargo parachute release installed

6-29. Placing Extraction Parachute

Place the extraction parachute as described below.

a. C-130 Aircraft. Place a 15-foot cargo extraction parachute and a 60-foot (1-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

b. C-141 Aircraft. Place a 15-foot cargo extraction parachute and a 160-foot (1-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

CAUTION

The extraction line will be a continuous 160-foot (1-loop), type XXVI nylon webbing extraction line. Shorter lines will not be used to form the 160-foot extraction line.

6-30. Installing Provisions for Emergency Restraints

Attach a medium suspension clevis to each front tandem link as shown in Figure 6-51.

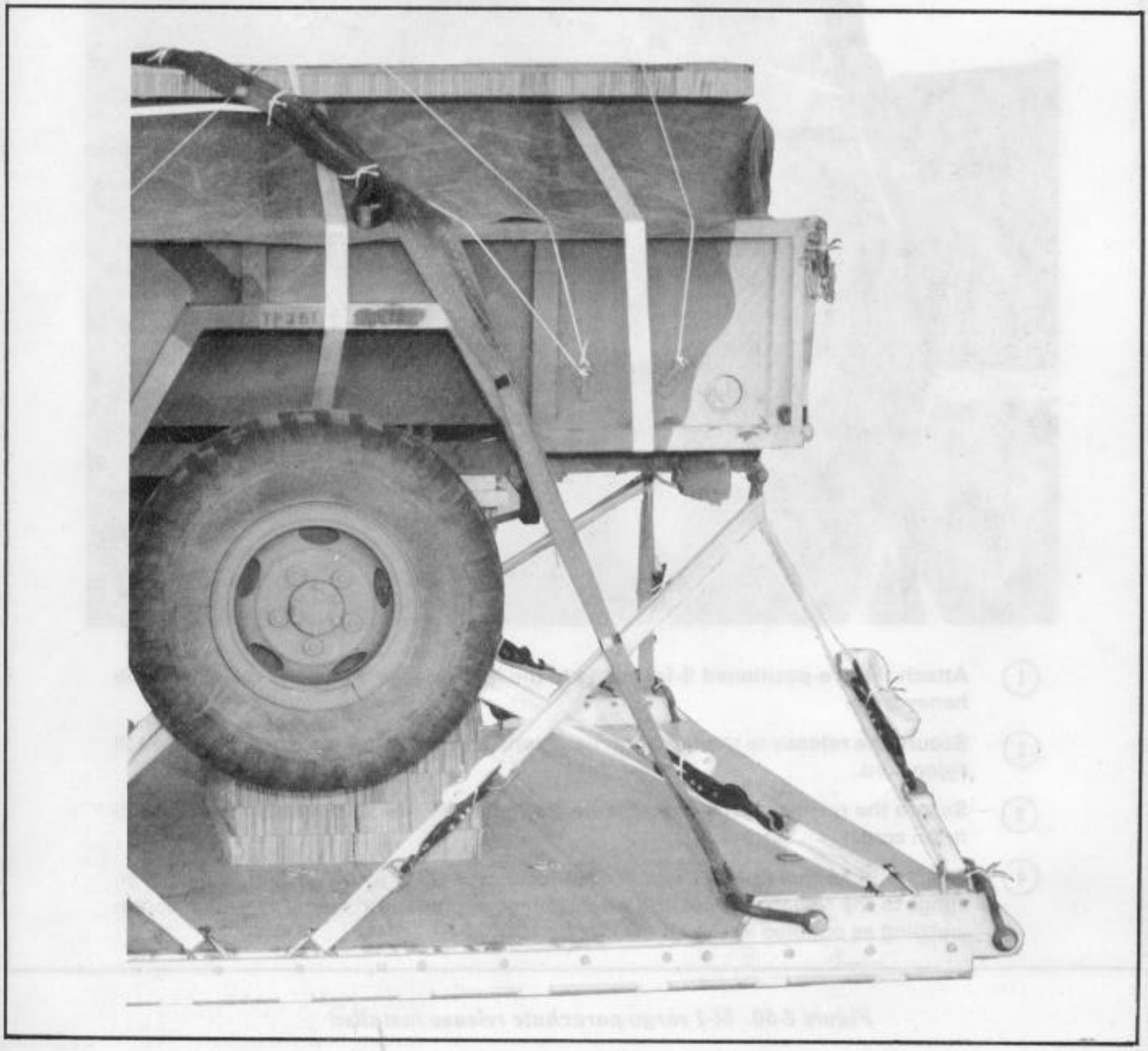


Figure 6-51. Provisions for emergency restraints installed

6-31. Marking Rigged Load

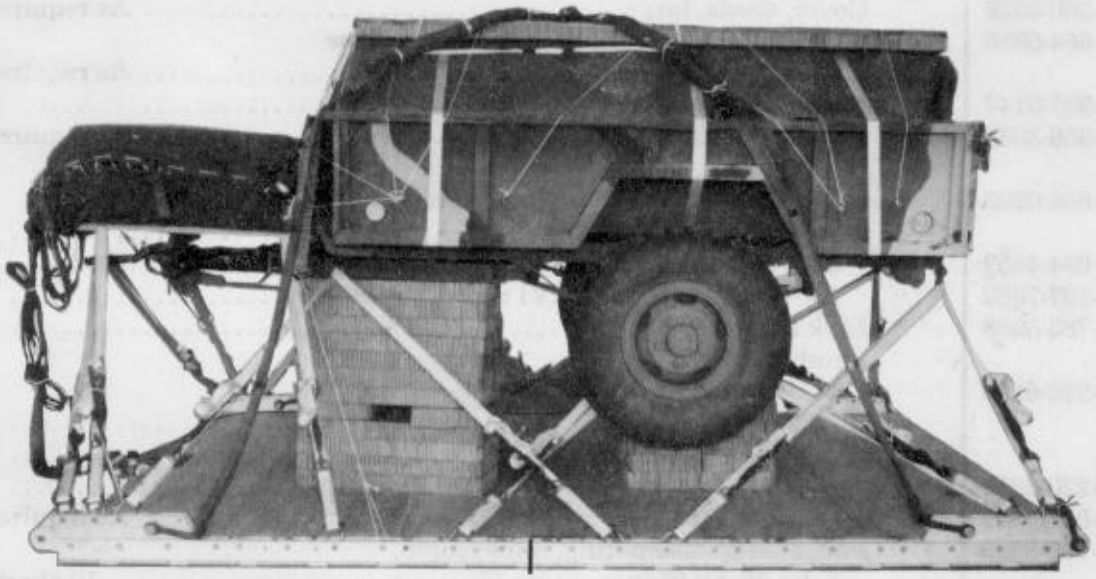
Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-52. Complete DD Form 1387-2, and securely attach it to the load. Indicate on DD Form 1387-2 that the fire extinguishers are on the load and have been prepared according to AFR 71-4/TM 38-250. If the load varies from the one shown in Figure 6-52, the height, weight, and CB must be recomputed.

6-32. Equipment Required

Use the equipment listed in Table 6-4 to rig this load.

CAUTION

Make the final rigger inspection required by FM 10-500-2/TO 13C7-1-5 before the load leaves the rigging site.



CB

RIGGED LOAD DATA

Weight:	Load shown	4,050 pounds
	Maximum load allowed: G-11A	4,250 pounds
	G-11B	5,000 pounds
Height		83 inches
Width		108 inches
Length		167 inches
Overhang:	Front	4 1/2 inches
	Rear	18 inches
CB (from front edge of platform)		72 1/2 inches
Extraction System		EFTC

Figure 6-52. FARE rigged in an M101A1, 3/4-ton trailer for low-velocity airdrop on a type V platform

Table 6-4. Equipment required for rigging FARE in an M101A1, 3/4-ton trailer for low-velocity airdrop on a type V platform

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal	As required
3990-00-937-0272	Binder, load, 10,000-lb	6
1670-00-035-6054	Bridle, extraction line bag (Use w extraction line leaf.)	1
	Clevis, suspension:	
4030-00-678-8562	3/4-in (medium)	2
4030-00-090-5354	1-in (large)	4
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5783	Coupling, airdrop, extraction force transfer w 12-ft cable	1
1670-00-360-0328	Cover, clevis, large	As required
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
5365-00-937-0147	D-ring, heavy-duty, 10,000-lb	2
8305-00-958-3685	Felt, 1/2-in thick	As required
	Line, extraction:	
1670-00-856-0265	60-ft (1-loop), type X nylon webbing (Use w 15-ft parachute.) or	1
1670-01-064-4452	60-ft (1-loop), type XXVI nylon webbing	1
1670-01-107-7652	160-ft (1-loop), type XXVI nylon webbing	1
1670-00-783-5988	Link assembly, type IV	1
	Lumber:	
5510-00-220-6146	2- by 4-in:	
	22-in	1
	36-in	1
5510-00-220-6250	2- by 12- by 46-in	2
5315-00-010-4659	Nail, steel wire, common, 8d	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	
	3- by 36- by 96-in:	10 sheets
	12- by 12-in.	(4)
	12- by 32-in.	(22)
	18- by 30-in.	(10)
	18- by 36-in.	(1)
	24- by 36-in.	(1)
	24- by 60-in.	(1)
	36- by 12-in.	(20)
	36- by 96-in.	(2)
	48- by 12-in.	(1)

Table 6-4. Equipment required for rigging FARE in an M101A1, 3/4-ton trailer for low-velocity airdrop on a type V platform (continued)

National Stock Number	Item	Quantity
	Parachute:	
	Cargo:	
1670-00-269-1107	G-11A	1
1670-01-016-7841	G-11B	1
	Cargo extraction:	
1670-00-052-1548	15-ft or	1
1670-01-063-3715	15-ft	1
	Platform, AD, type V, 12-ft:	1
	Bracket:	
1670-01-162-2375	Inside EFTA	(1)
1670-01-162-2374	Outside EFTA	(1)
1670-01-162-2372	Clevis assembly	(18)
1670-01-162-2376	Extraction bracket assembly	(1)
1670-01-162-2381	Tandem link	(4)
5530-00-128-4981	Plywood, 3/4- by 36- by 36-in	1
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo airdrop:	
	For deployment line:	
1670-00-753-3631	9-ft (3-loop), type X nylon webbing or	1
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For lifting:	
1670-00-823-5040	11-ft (3-loop), type X nylon webbing or	2
1670-01-063-7760	11-ft (2-loop), type XXVI nylon webbing	2
1670-00-823-5041	12-ft (3-loop), type X nylon webbing or	1
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing	1
	For riser extensions:	
1670-00-753-3788	3-ft (3-loop), type X nylon webbing or	1
1670-01-062-6301	3-ft (2-loop), type XXVI nylon webbing	1
	For suspension:	
1670-00-823-5042	16-ft (3-loop), type X nylon webbing or	4
1670-01-063-7761	16-ft (2-loop), type XXVI nylon webbing	4
8125-00-074-5124	Tape, adhesive, cloth-backed, type IV, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-ft	23
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
	Nylon, tubular:	
8305-00-082-5752	1/2-in or	As required
8305-00-268-2453	1/2-in	As required

CHAPTER 8

RIGGING FARE IN AN M998, 1 1/4-TON TRUCK (HMMWV) FOR LOW-VELOCITY AIRDROP ON A TYPE V PLATFORM

8-1. Description of Load

The M998, 1 1/4-ton cargo truck is rigged on a 16-foot, type V airdrop platform for low-velocity airdrop. Except for the rigging procedures in this chapter, the truck is rigged according to FM 10-517/TO 13C7-1-111. The FARE is stowed in the cargo bed of the truck as an accompanying load. The FARE weighs 860 pounds. The completely rigged load requires three G-11A or two G-11B cargo parachutes.

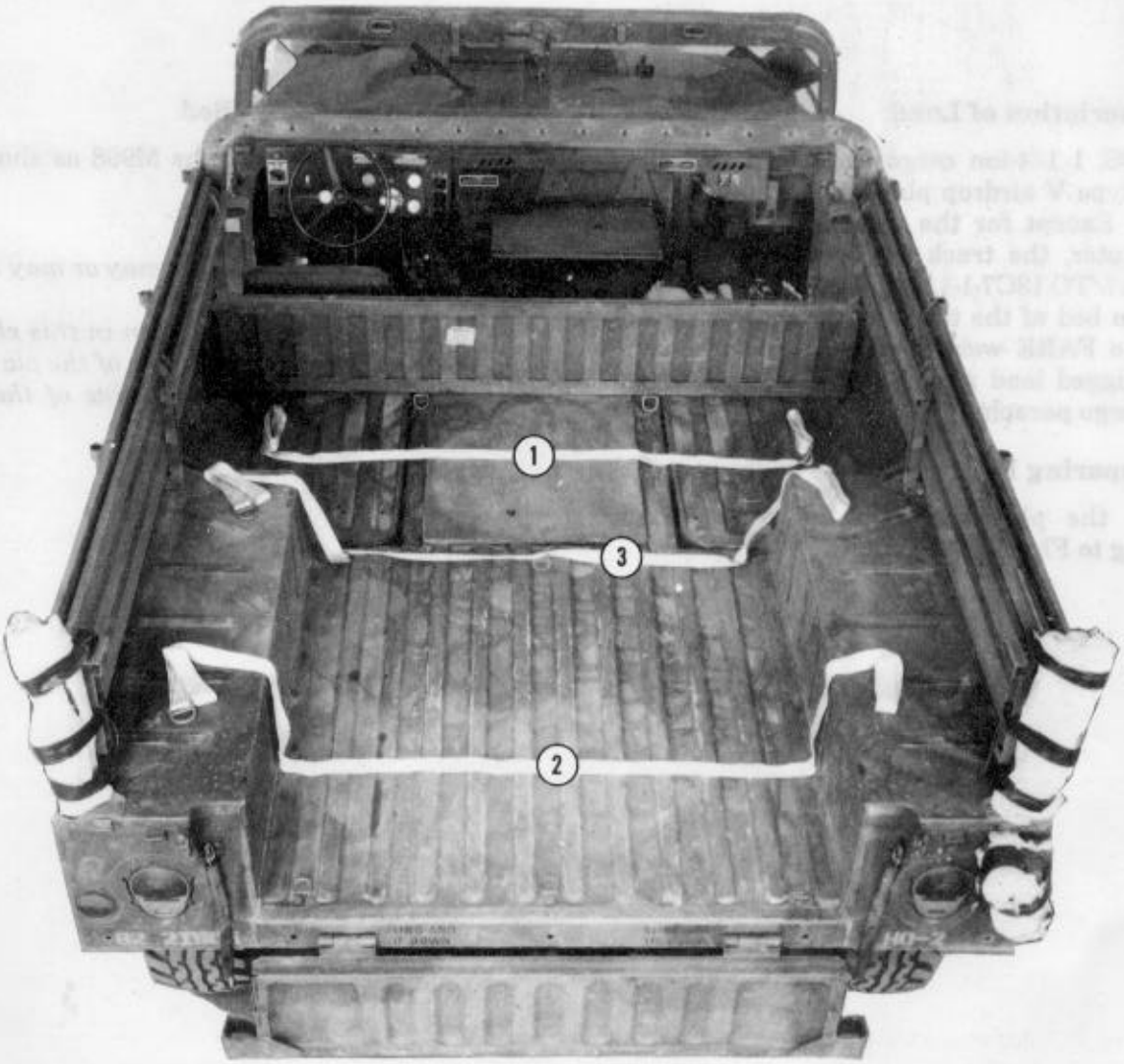
8-2. Preparing Platform and Truck

Prepare the platform and the M998 truck according to FM 10-517/TO 13C7-1-111.

8-3. Preparing Cargo Bed

Prepare the cargo bed of the M998 as shown in Figure 8-1.

Notes: *1. The nose bumper may or may not be installed.*
2. Measurements given in this chapter are from the front edge of the platform, NOT from the front edge of the nose bumper.



(1) Lay a 15-foot lashing across the cargo bed 14 inches from the back of the seats.

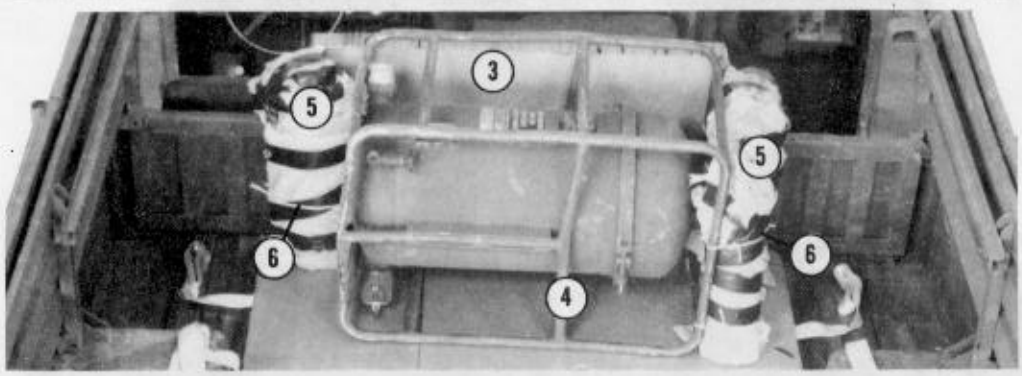
(2) Lay a 15-foot lashing across the cargo bed 18 inches from the rear edge of the cargo bed.

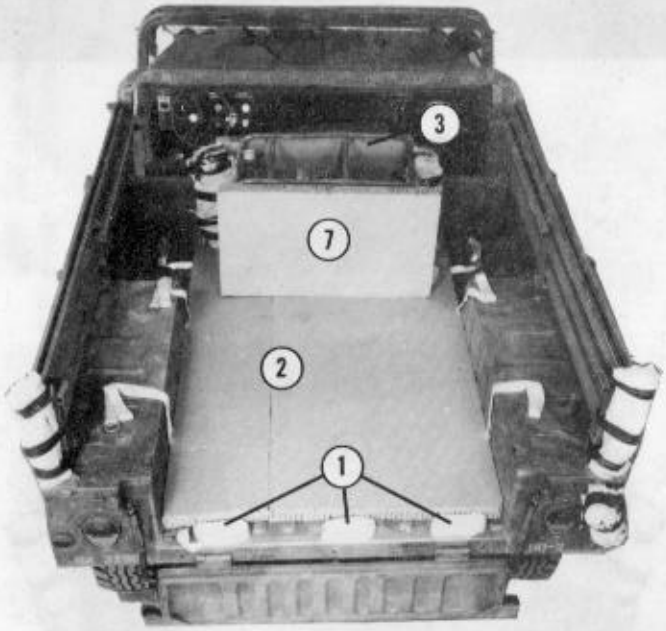
(3) Pass a 15-foot lashing through the center tie-down rings.

Figure 8-1. Cargo bed prepared

8-4. Placing FARE in Cargo Bed

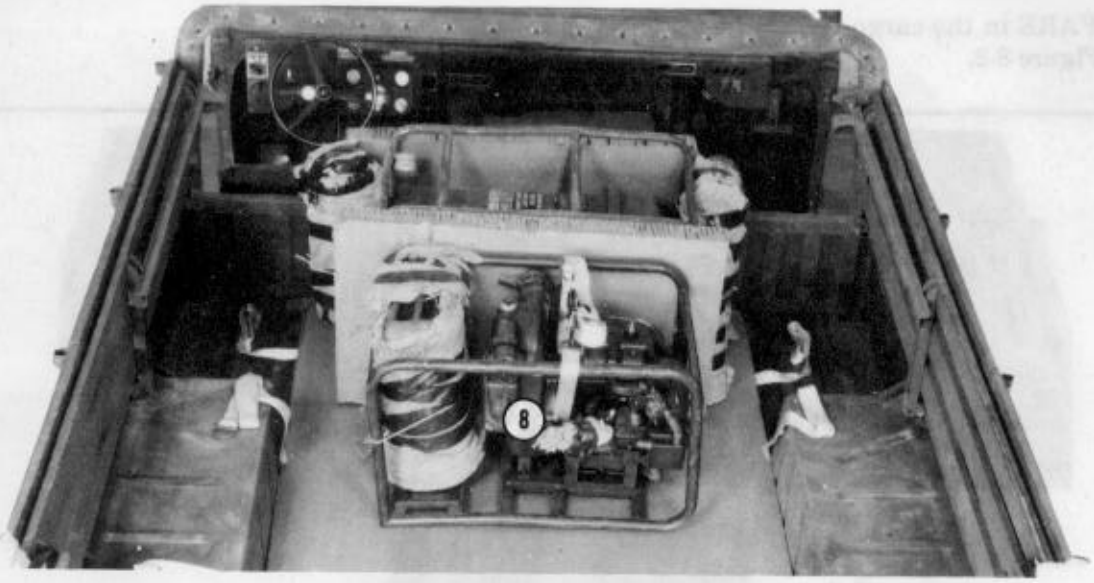
Place the FARE in the cargo bed of the M998 as shown in Figure 8-2.

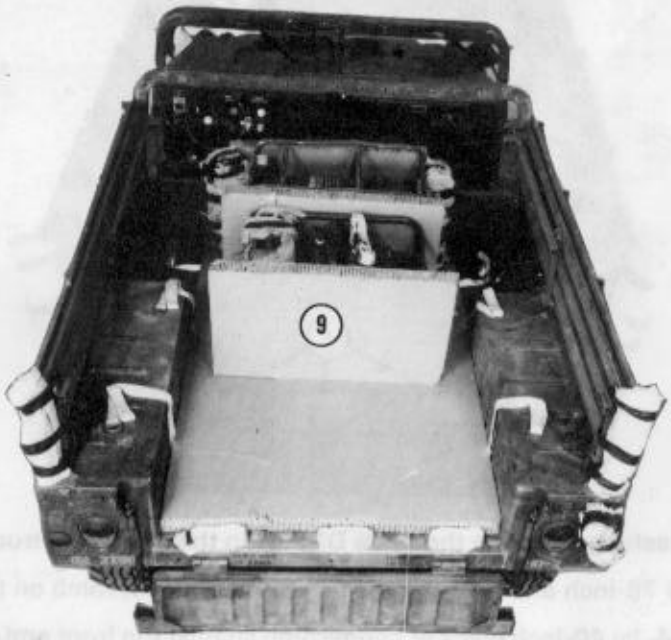




1. Pass three lashings through the three D-rings in the bed of the truck.
2. Set a 36- by 78-inch and a 16- by 78-inch piece of honeycomb on the carrier floor.
3. Position a 24- by 40-inch piece of honeycomb against the front end of the cargo bed.
4. Place the filter/separator assembly in its frame against the 24- by 40-inch piece of honeycomb.
5. Wrap three fire extinguishers in a layer of cellulose wadding. Secure the cellulose wadding with cloth-backed tape.
6. Secure the fire extinguishers to the filter/separator frame with a length of type III nylon cord.
7. Place a 24- by 40-inch piece of honeycomb flush against the filter/separator frame.

Figure 8-2. FARE placed in cargo bed

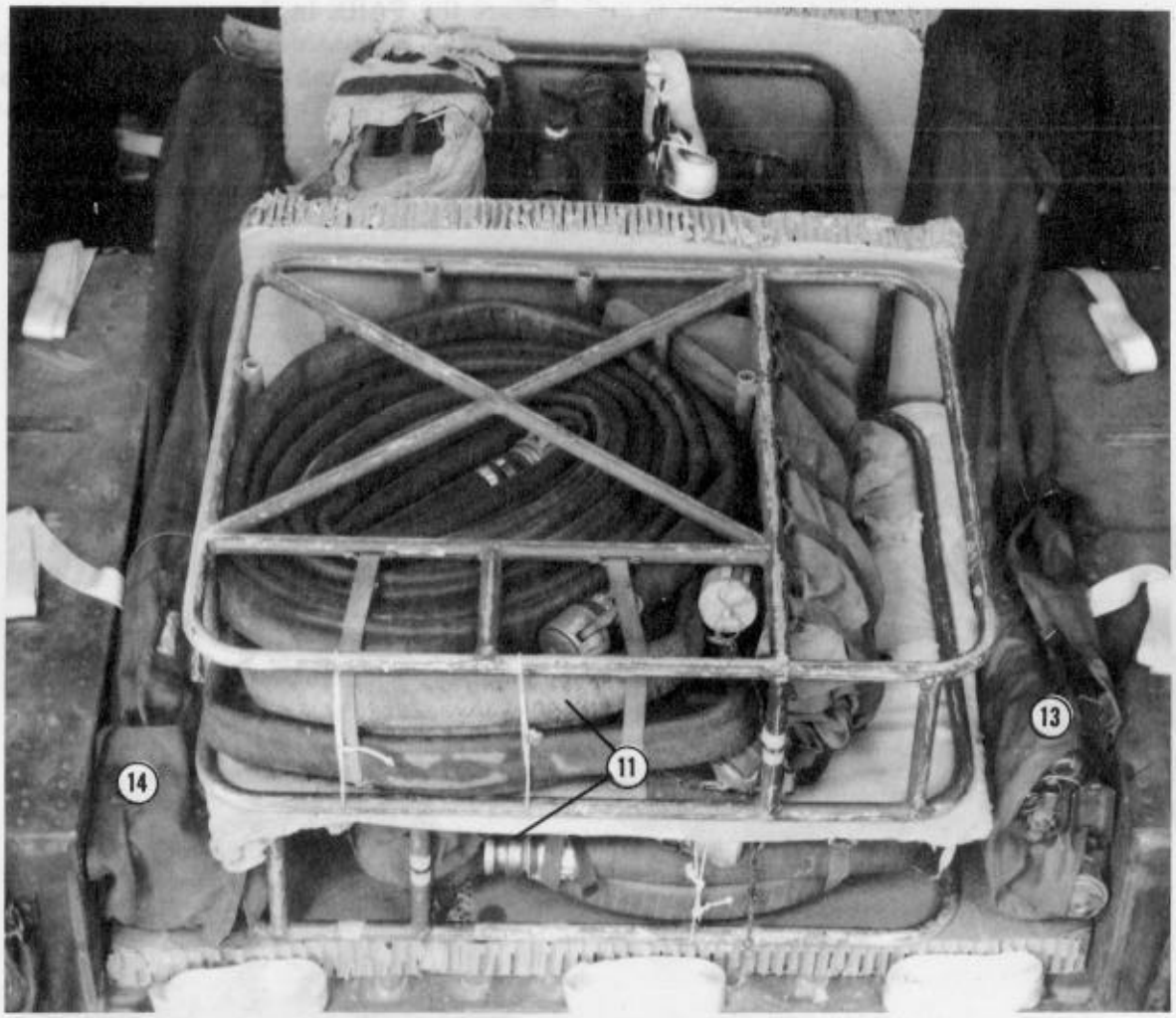




(8) Prepare the pump/engine assembly as shown in Figure 6-9. Place the pump/engine assembly flush against the 24- by 40-inch piece of honeycomb placed in step 7.

(9) Place a 24- by 40-inch piece of honeycomb flush against the pump/engine assembly.

Figure 8-2. FARE placed in cargo bed (continued)



(10) Prepare the discharge hose frame assemblies as shown in Figure 6-7 (not shown).

(11) Place one discharge hose frame assembly on the honeycomb in the cargo bed. Place a layer of cellulose wadding on top of the frame. Place another discharge hose frame assembly on top of the cellulose wadding.

Note: ***Make sure the discharge hose accessory fittings placed in the accessory storage compartment are secured to the discharge hose frame.***

(12) Prepare the ground rods and suction hoses as shown in Figure 6-12 (not shown).

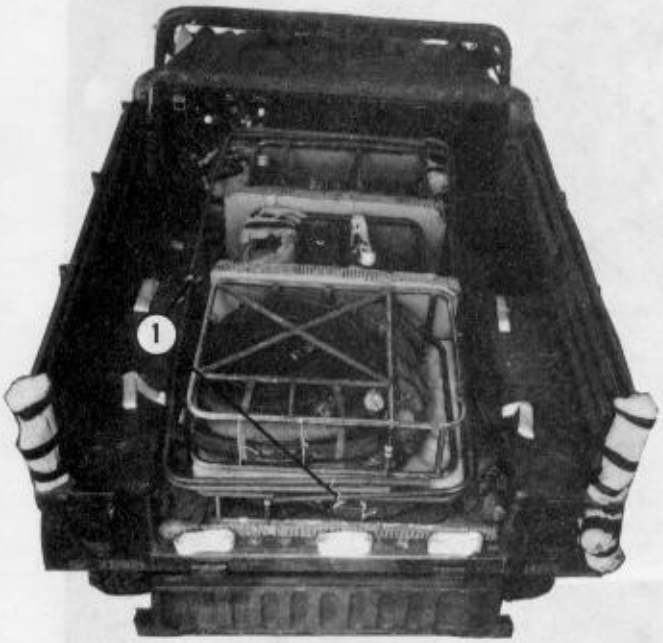
(13) Place a suction hose bag on the right side of the FARE on top of the honeycomb in the cargo bed.

(14) Place a suction hose bag on the left side of the FARE on top of the honeycomb in the cargo bed.

Figure 8-2. FARE placed in cargo bed (continued)

8-5. Securing FARE

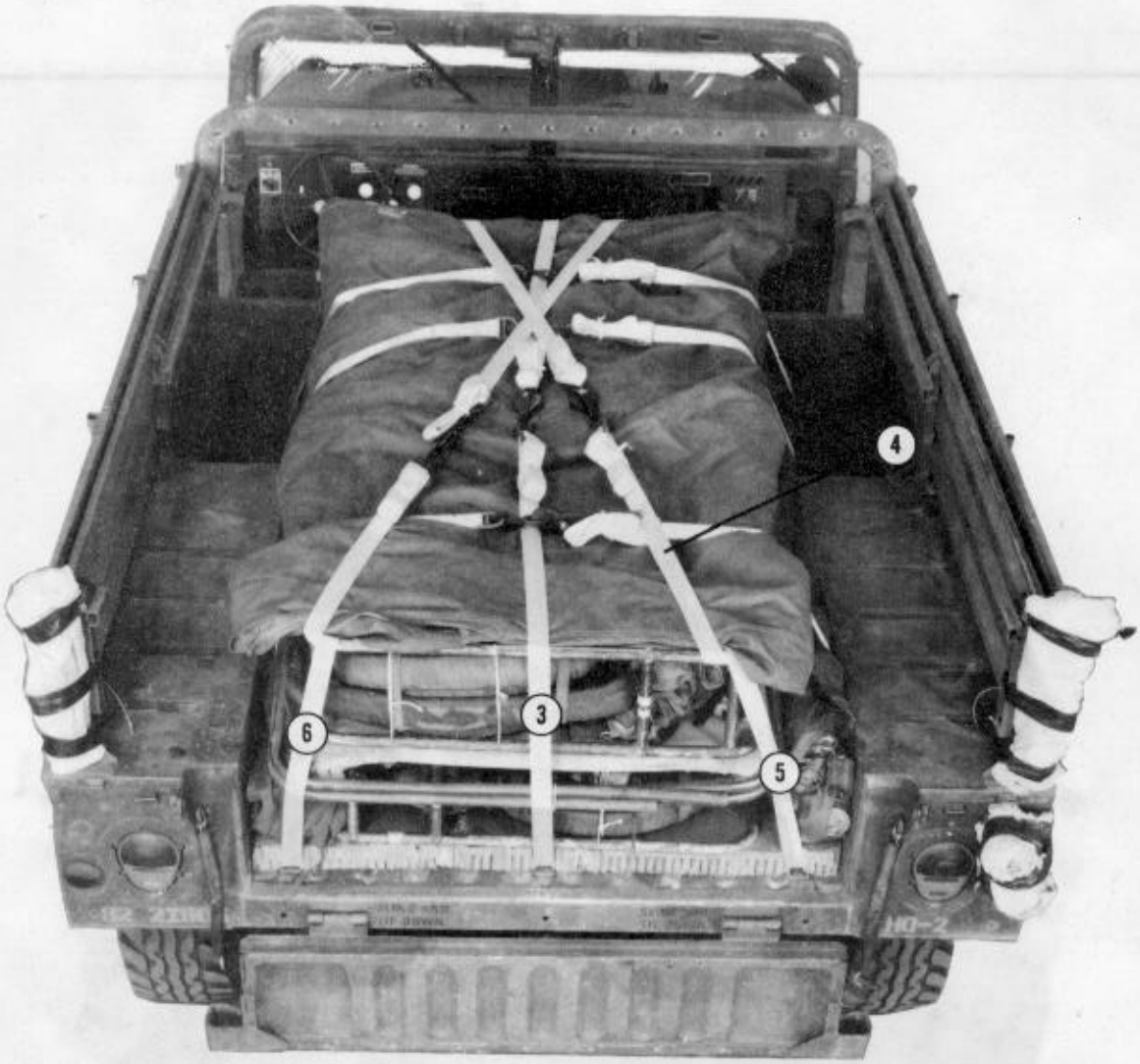
Secure the FARE in the cargo bed of the M998 using the pre-positioned lashings. Secure the lashings with D-rings and load binders according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 8-3.



(1) Place the truck tarpaulin bows on top of the suction hose bags. Tie the bows together with a length of type III nylon cord.

(2) Place the truck tarpaulin cover over the FARE. Fold the ends under to ensure a neat appearance.

Figure 8-3. FARE secured



(3) Pass the ends of the center lashing over the top of the tarpaulin, and secure the lashing in place.

(4) Pass the ends of the three horizontal lashings over the top of the tarpaulin, and secure them in place.

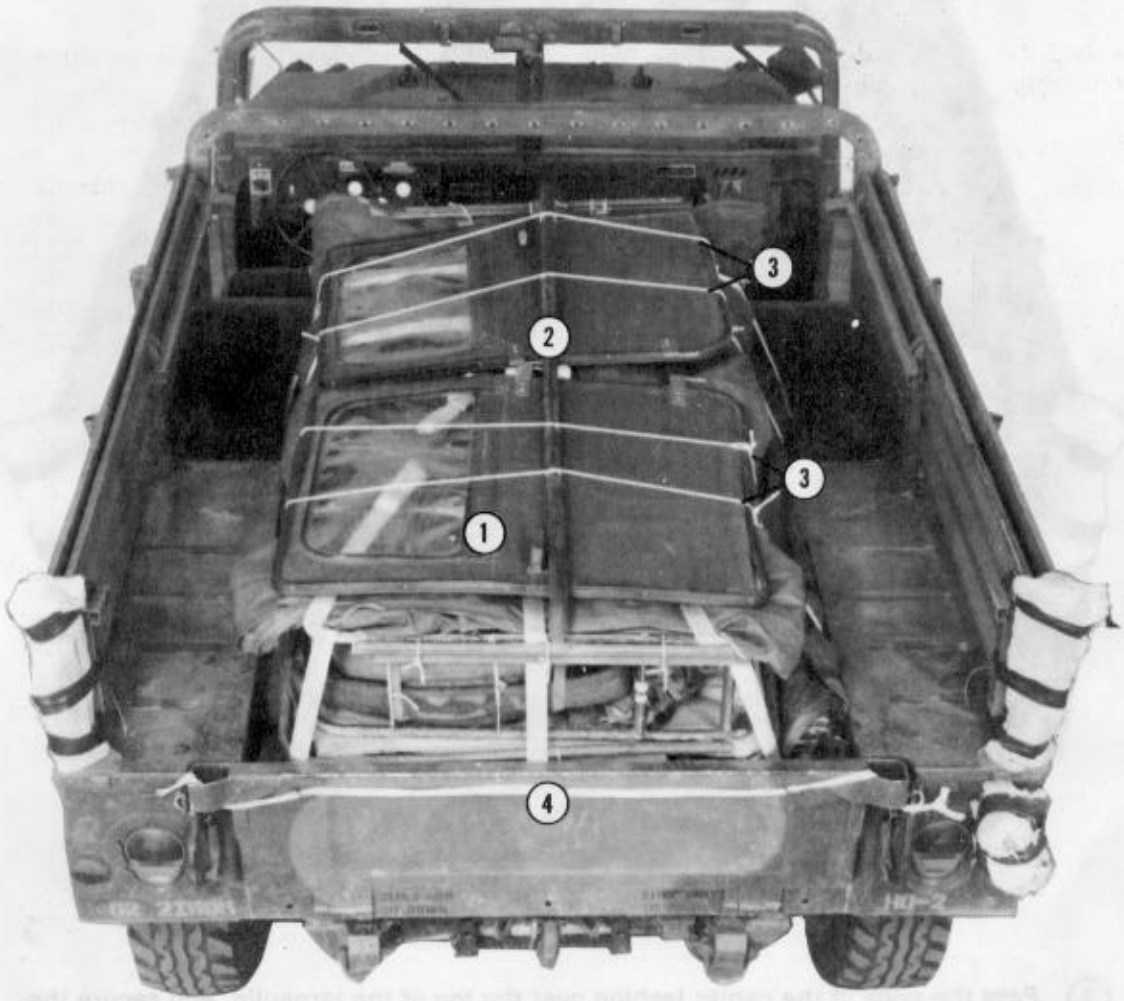
(5) Pass the right rear lashing over and around the discharge hose assembly to the top of the tarpaulin. Pass the left front lashing over the tarpaulin to meet the right rear lashing. Secure the lashing in place.

(6) Pass the left rear lashing over and around the discharge hose assembly to the top of the tarpaulin. Pass the right front lashing over the tarpaulin to meet the left rear lashing. Secure the lashing in place.

Figure 8-3. FARE secured (continued)

8-6. Securing Accessories

Secure the accessories on the tarpaulin as shown in Figure 8-4.



(1) Place the doors on top of the tarpaulin.

(2) Place the frame support on top of the doors.

(3) Secure the doors to the bows using a length of type III nylon cord.

(4) Close the tailgate, and secure it in place with a double length of 1/2-inch tubular nylon webbing. Tie the ends using three alternating half hitches and an overhand knot in the ends.

Figure 8-4. Accessories secured

Table 8-1. Equipment required for rigging FARE in an M998, 1 1/4-ton truck for low-velocity airdrop on a type V platform

National Stock Number	Item	Quantity
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in:	4 sheets
	16- by 78-in	(1)
	22- by 23-in	(1)
	22- by 94-in	(1)
	24- by 40-in	(3)
	36- by 78-in	(1)
	Tape, adhesive:	
7510-00-266-5016	2-in	As required
8125-00-074-5124	Cloth-backed, type IV, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-ft	6
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
	Nylon, tubular:	
8305-00-082-5752	1/2-in or	As required
8305-00-268-2453	1/2-in	As required

CHAPTER 9

RIGGING FARE WITH SEVEN 500-GALLON FUEL DRUMS ON A 32-FOOT, TYPE V PLATFORM

Section I
LOW-VELOCITY AIRDROP

9-1. Description of Load

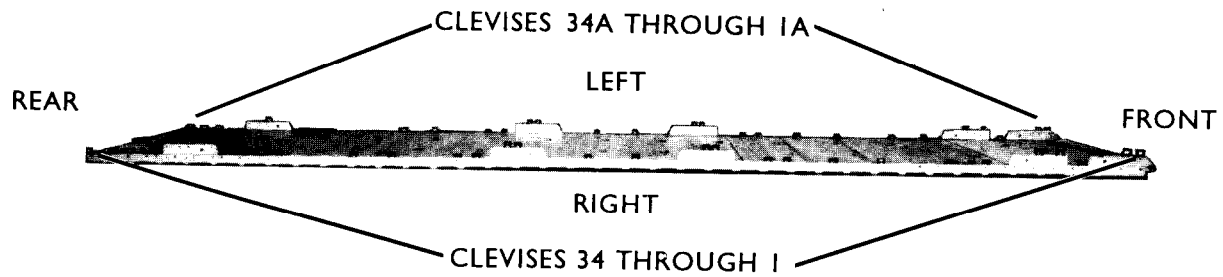
Two containerized FARE and seven 500-gallon collapsible fuel drums are rigged on a 32-foot, type V airdrop platform with six G-11C cargo parachutes. Each drum is filled with 432 gallons of fuel. Each containerized FARE weighs 1,230 pounds. Each gasoline-filled 500-gallon fuel drum weighs 2,842 pounds and is approximately 53 inches high, 53 inches wide, and 62 inches in length. The total weight of the seven gasoline-filled drums and the two containerized FARE is 22,354 pounds.

Note: *For drums filled with a fuel other than gasoline, use Table 6-1 to recompute the weight.*

9-2. Preparing Platform

Prepare a 32-foot, type V platform using two tandem links, eight suspension links, and 76 tie-down clevises as shown in Figure 9-1.

Notes: *1. The nose bumper may or may not be installed.*
2. Measurements given in this section are from the front edge of the platform, NOT from the front edge of the nose bumper.



Step:

1. Inspect, or assemble and inspect, the platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a suspension link to bushings 6, 7, and 8; 26, 27, and 28; 37, 38, and 39; and 57, 58, and 59 on each platform side rail.
3. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
4. Install a tie-down clevis to bushings 1 and 2 on each tandem link.
5. Install a tie-down clevis to bushings 1 and 3 on the first suspension link on each platform side rail.
6. Install a tie-down clevis to bushings 2 and 3 on the second suspension link on each platform side rail.
7. Install a tie-down clevis to bushings 2 and 3 on the third suspension link on each platform side rail.
8. Install a tie-down clevis to bushing 2 on the fourth suspension link on each platform side rail.
9. Starting at the front of the platform, install a tie-down clevis to bushings 4, 10, 11, 12, 16, 19, 22, 23, 31, 34, 41, 42, 46, 48, 53, 54, 55, 61, 62, 63, and 64. Invert the clevises on bushings 11, 54, 55, and 61. Install two clevises to each inverted clevis.
10. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 34 and those bolted to the left side from 1A through 34A.

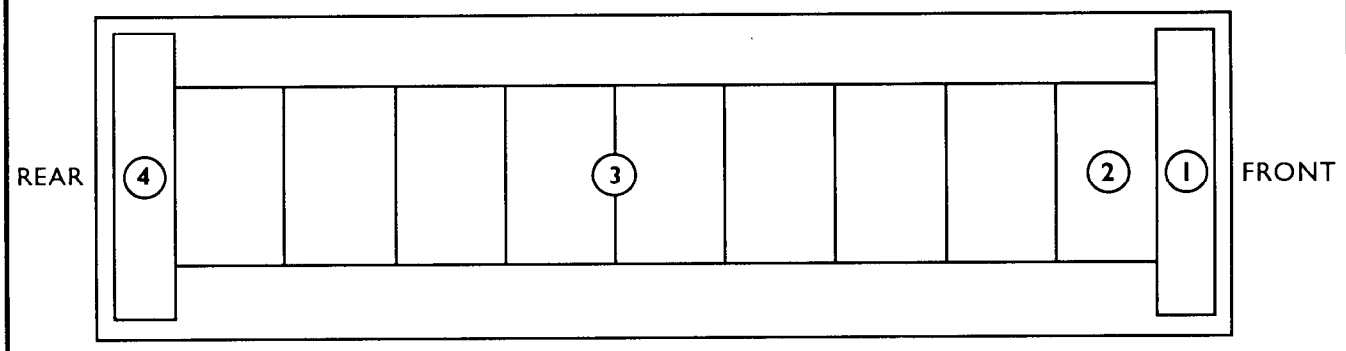
Figure 9-1. Platform prepared

9-3. Building and Positioning Honeycomb

Position the base layers of honeycomb on the platform as shown in Figures 9-2 and 9-3. Build and position three honeycomb stacks on top of the base layers of honeycomb as shown in Figure 9-4.

Note: *Do not glue the stacks of honeycomb to the platform.*

Note: ***This drawing is not drawn to scale.***



1. Center two 96- by 24-inch pieces of honeycomb 9 inches from the front edge of the platform.
2. Center two 60- by 30-inch pieces of honeycomb flush against those positioned in step 1.
3. Center sixteen 60- by 36-inch pieces of honeycomb (eight sets, two pieces each) on the platform. Place the first set flush against the rear edge of the honeycomb positioned in step 2. Place other sets flush against each previous set.
4. Center two 96- by 24-inch pieces of honeycomb flush against the rear of the honeycomb positioned in step 3.

Figure 9-2. Base layers positioned

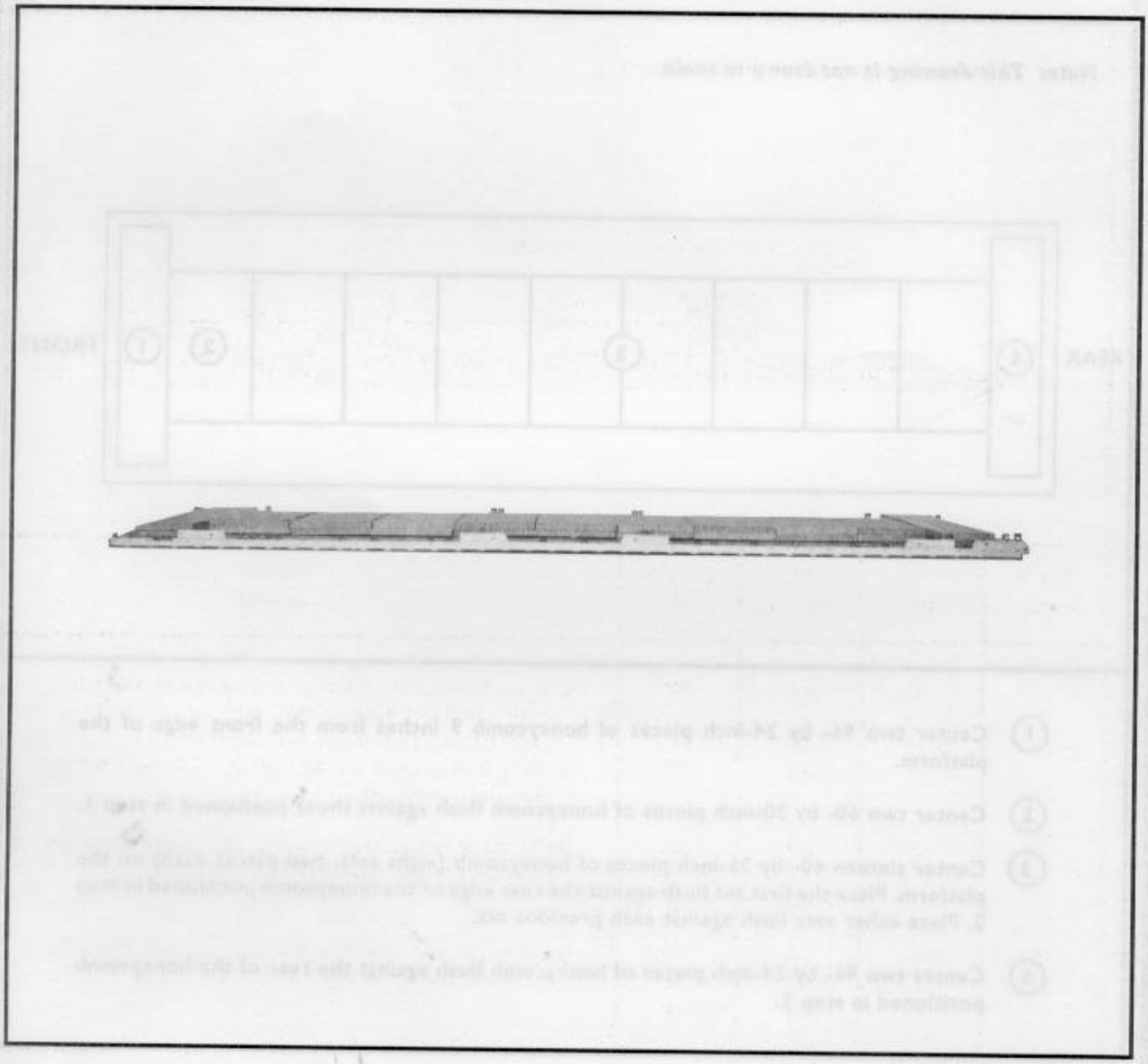
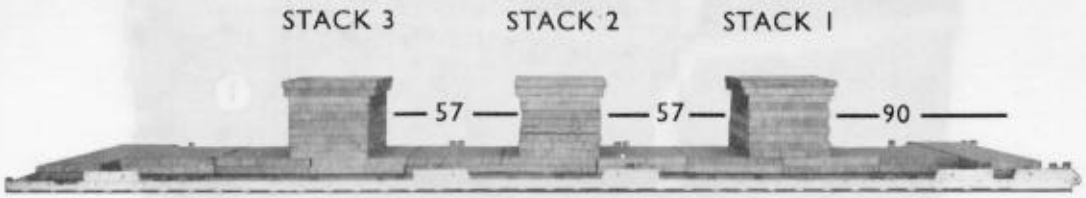


Figure 9-3. Side view of base layers positioned

Note: *All measurements are given in inches.*



Stack Number	Pieces	Width (Inches)	Length (Inches)	Instructions
1	8	60	30	Center honeycomb on top of base layers 90 inches from the front edge of the platform.
	1	60	34	Center honeycomb on top of the base.
	1	60	36	Center honeycomb on top of the 60- by 34-inch piece of honeycomb.
2	8	60	30	Build stack according to stack 1. Center stack 57 inches from the rear edge of stack 1.
	1	60	34	
	1	60	36	
3	8	60	30	Build stack according to stack 1. Center stack 57 inches from the rear edge of stack 2.
	1	60	34	
	1	60	36	

Figure 9-4. Honeycomb stacks prepared and positioned

9-4. Preparing FARE

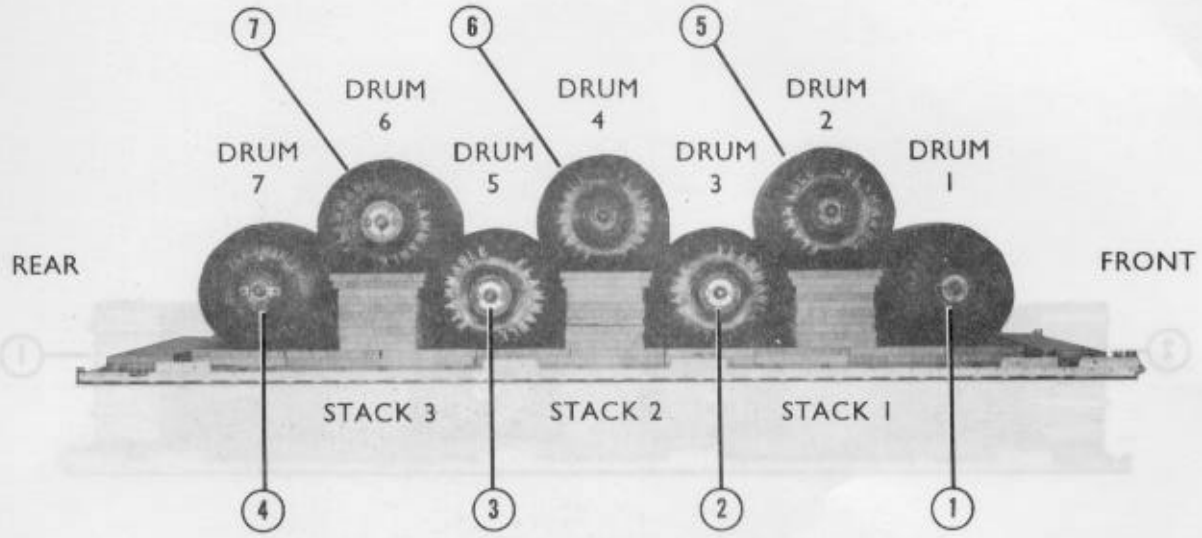
Build two containers for the FARE according to paragraph 6-4. Prepare the components of the FARE and stow them in the containers according to paragraph 6-5. Secure the containers as shown in Figure 9-5.

(1) Secure the containers according to paragraph 6-6 except position the vertical lashings so that the load binders are on the side of the containers.

Figure 9-5. Container secured

9-5. Installing Lifting Slings and Positioning Fuel Drums

Before lifting, check each fuel drum and fittings for leaks and damage. Be sure each end of each fuel drum has two lifting shackles. Attach a 12-foot (2-loop), type XXVI nylon webbing sling to each fuel drum lifting shackle by adapting the procedures in paragraph 6-8 and as shown in Figure 6-16. Position the fuel drums as shown in Figure 9-6.



1. Place drum 1 flush against the front of stack 1.
2. Place drum 3 between stacks 1 and 2.
3. Place drum 5 between stacks 2 and 3.
4. Place drum 7 flush against the rear of stack 3.
5. Center drum 2 on top of stack 1.
6. Center drum 4 on top of stack 2.
7. Center drum 6 on top of stack 3.

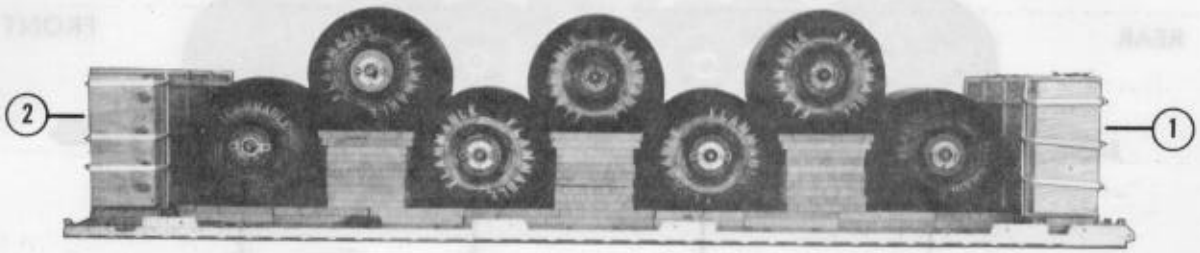
Figure 9-6. Fuel drums positioned

9-6. Installing Lifting Slings and Positioning FARE Containers

Install lifting slings to the FARE containers as shown in Figure 6-14. Position the FARE containers as shown in Figure 9-7.

9-7. Lashing FARE Containers and Fuel Drums to Platform

Lash the FARE containers and fuel drums to the platform using sixty-two 15-foot tie-down assemblies as shown in Figures 9-8 through 9-13. Secure the lashings according to FM 10-500-2/TO 13C7-1-5.



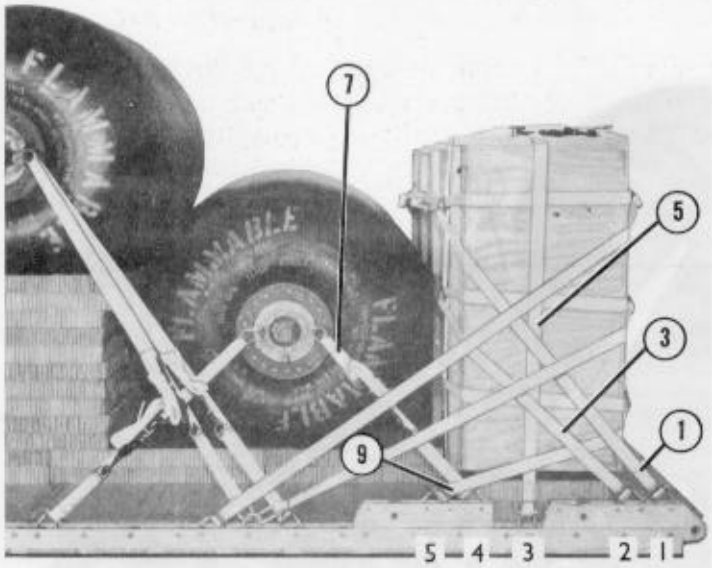
Notes: *1. Containers should be positioned so that the load binders are facing the ends of the platform.*

2. No load binders must be on top of container 2.

(1) Center container 1 flush with the front edge of the base layers of honeycomb.

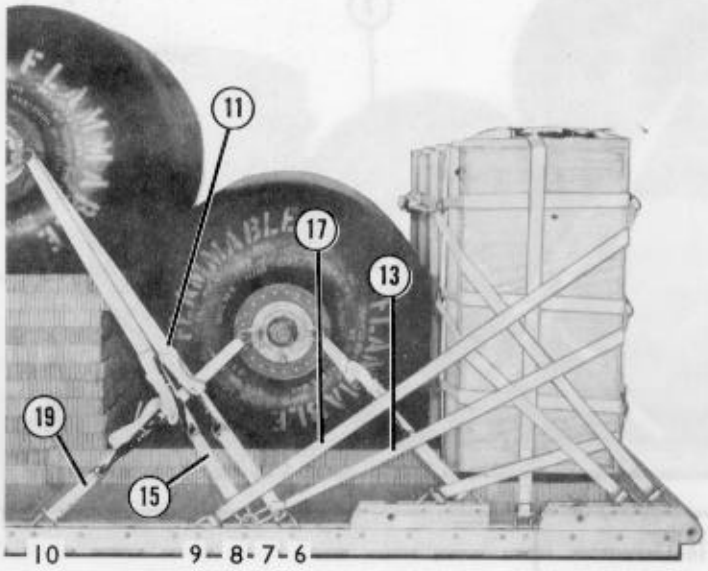
(2) Center container 2 flush with the rear edge of the base layers of honeycomb.

Figure 9-7. FARE containers positioned



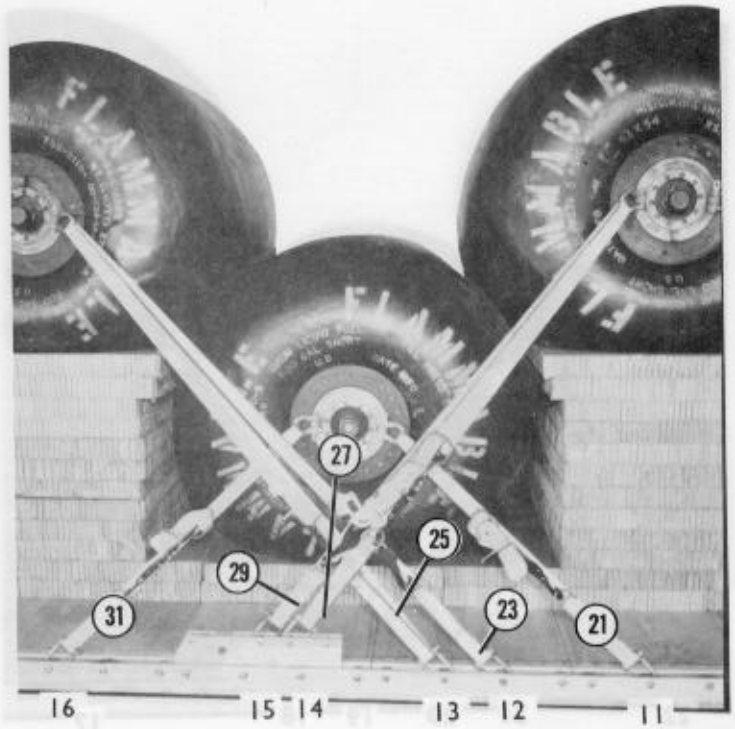
Lashing Number	Tie-Down Clevis Number	Instructions
		Pass lashing:
1	1	Through its own D-ring and through the top rings on the rear of container 1.
2	1A	Through its own D-ring and through the top rings on the rear of container 1. Bind lashing 2 to lashing 1 with two D-rings and a load binder.
3	2	Through its own D-ring and through the middle rings on the rear of container 1.
4	2A	Through its own D-ring and through the middle rings on the rear of container 1. Bind lashing 4 to lashing 3 with two D-rings and a load binder.
5	3	Through its own D-ring and over the top of container 1.
6	3A	Through its own D-ring and over the top of container 1. Bind lashing 6 to lashing 5 with two D-rings and a load binder.
7	4	To the front shackle on drum 1.
8	4A	To the front shackle on drum 1.
9	5	Through its own D-ring and through the bottom rings on the front of container 1
10	5A	Through its own D-ring and through the bottom rings on the front of container 1. Bind lashing 10 to lashing 9 with two D-rings and a load binder.

Figure 9-8. Lashings 1 through 10 installed



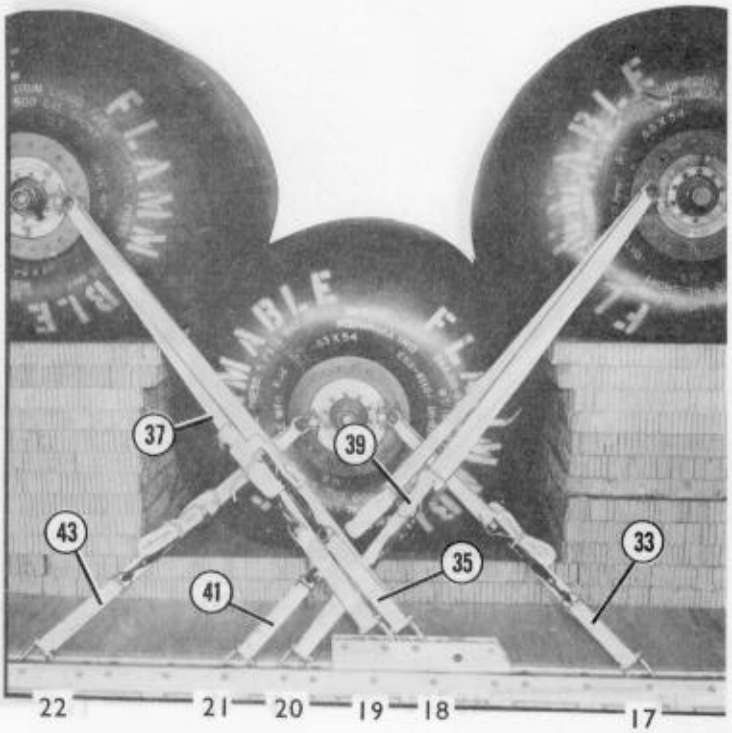
Lashing Number	Tie-Down Clevis Number	Instructions
		Pass lashing:
11	6	To the front shackle on drum 2.
12	6A	To the front shackle on drum 2.
13	7	Through its own D-ring and through the middle rings on the front of container 1.
14	7A	Through its own D-ring and through the middle rings on the front of container 1. Bind lashing 14 to lashing 13 with two D-rings and a load binder.
15	8	To the front shackle on drum 2.
16	8A	To the front shackle on drum 2.
17	9	Through its own D-ring and through the top rings on the front of container 1.
18	9A	Through its own D-ring and through the top rings on the front of container 1. Bind lashing 18 to lashing 17 with two D-rings and a load binder.
19	10	To the rear shackle on drum 1.
20	10A	To the rear shackle on drum 1.

Figure 9-9. Lashings 11 through 20 installed



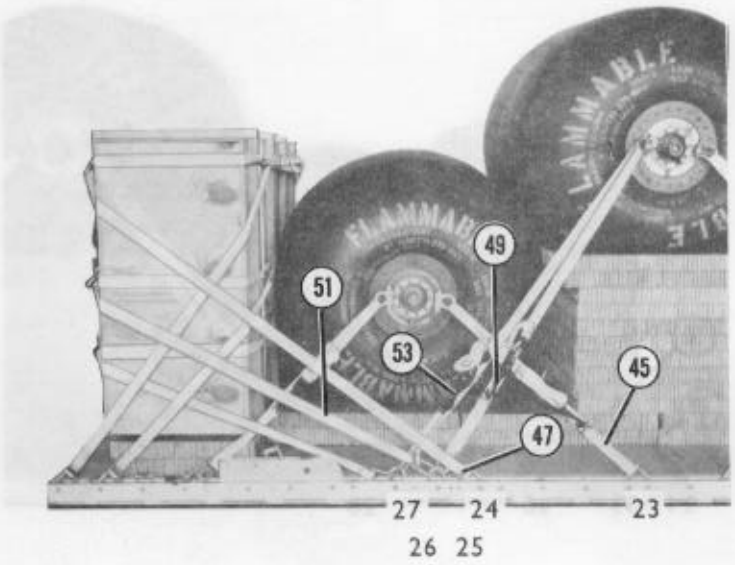
Lashing Number	Tie-Down Clevis Number	Instructions
		Pass lashing:
21	11	To the front shackle on drum 3.
22	11A	To the front shackle on drum 3.
23	12	To the front shackle on drum 4.
24	12A	To the front shackle on drum 4.
25	13	To the front shackle on drum 4.
26	13A	To the front shackle on drum 4.
27	14	To the rear shackle on drum 2.
28	14A	To the rear shackle on drum 2.
29	15	To the rear shackle on drum 2.
30	15A	To the rear shackle on drum 2.
31	16	To the rear shackle on drum 3.
32	16A	To the rear shackle on drum 3.

Figure 9-10. Lashings 21 through 32 installed



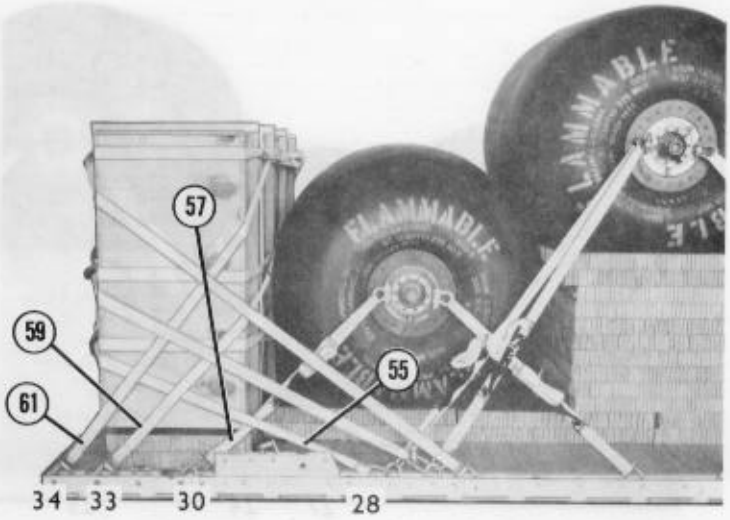
Lashing Number	Tie-Down Clevis Number	Instructions
		Pass lashing:
33	17	To the front shackle on drum 5.
34	17A	To the front shackle on drum 5.
35	18	To the front shackle on drum 6.
36	18A	To the front shackle on drum 6.
37	19	To the front shackle on drum 6.
38	19A	To the front shackle on drum 6.
39	20	To the rear shackle on drum 4.
40	20A	To the rear shackle on drum 4.
41	21	To the rear shackle on drum 4.
42	21A	To the rear shackle on drum 4.
43	22	To the rear shackle on drum 5.
44	22A	To the rear shackle on drum 5.

Figure 9-11. Lashings 33 through 44 installed



Lashing Number	Tie-Down Clevis Number	Instructions
		Pass lashing:
45	23	To the front shackle on drum 7.
46	23A	To the front shackle on drum 7.
47	24	Through its own D-ring and through the top rings on the rear of container 2.
48	24A	Through its own D-ring and through the top rings on the rear of container 2. Bind lashing 48 to lashing 47 with two D-rings and a load binder.
49	25	To the rear shackle on drum 6.
50	25A	To the rear shackle on drum 6.
51	26	Through its own D-ring and through the middle rings on the rear of container 2.
52	26A	Through its own D-ring and through the middle rings on the rear of container 2. Bind lashing 52 to lashing 51 with two D-rings and a load binder.
53	27	To the rear shackle on drum 6.
54	27A	To the rear shackle on drum 6.

Figure 9-12. Lashings 45 through 54 installed



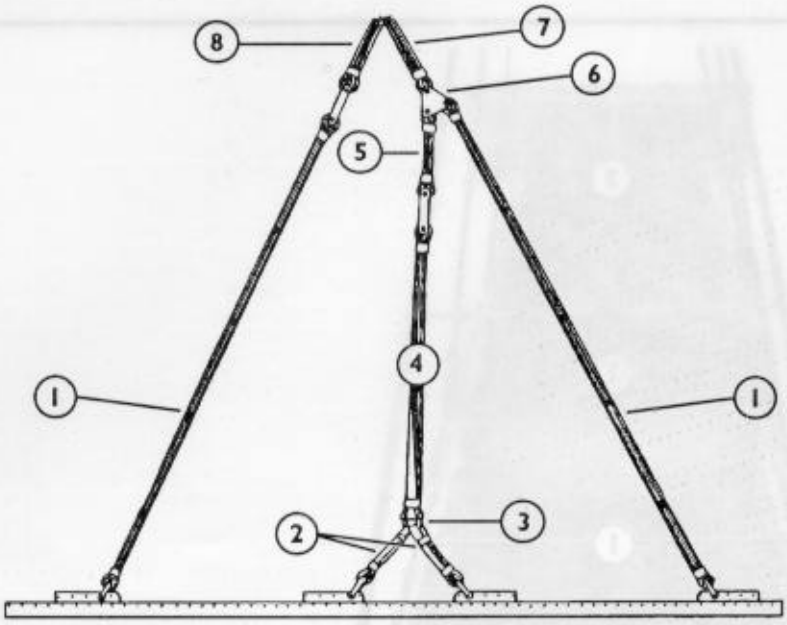
Lashing Number	Tie-Down Clevis Number	Instructions
		Pass lashing:
55	28	Through its own D-ring and through the bottom rings on the rear of container 2.
56	28A	Through its own D-ring and through the bottom rings on the rear of container 2. Bind lashing 56 to lashing 55 with two D-rings and a load binder.
57	30	To the rear shackle on drum 7.
58	30A	To the rear shackle on drum 7.
59	33	Through its own D-ring and through the middle rings on the front of container 2.
60	33A	Through its own D-ring and through the middle rings on the front of container 2. Bind lashing 60 to lashing 59 with two D-rings and a load binder.
61	34	Through its own D-ring and through the top rings on the front of container 2.
62	34A	Through its own D-ring and through the top rings on the front of container 2. Bind lashing 62 to lashing 61 with two D-rings and a load binder.

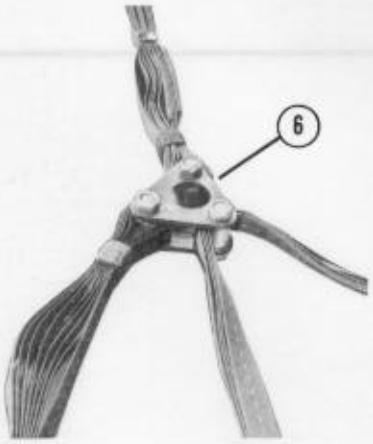
Figure 9-13. Lashings 55 through 62 installed

9-8. Installing Suspension Slings

Install suspension slings as shown in Figure 9-14.

Note: ***This drawing is not drawn to scale.***





(1) Attach a 20-foot (4-loop), type XXVI nylon webbing sling to each first and fourth suspension link with a large suspension clevis.

(2) Attach a 3-foot (4-loop), type XXVI nylon webbing sling to each second and third suspension link with a large suspension clevis.

(3) Place the 3-foot slings on each side of the load in the bell of a large suspension clevis.

(4) Bolt a 16-foot (2-loop), type XXVI nylon webbing sling to each large suspension clevis. Loop the sling to form one half the length of the sling.

(5) Attach a 9-foot (2-loop), type XXVI nylon webbing sling to the 16-foot sling with a 5 1/2-inch, two-point link assembly. Loop the sling to form one half the length of the sling.

(6) Remove the cams from two EFTC adapters and replace them with spacers. Use the adapters to join the center and front suspension slings.

(7) Place a 3-foot (4-loop), type XXVI nylon webbing sling on the top spool of each coupling adapter.

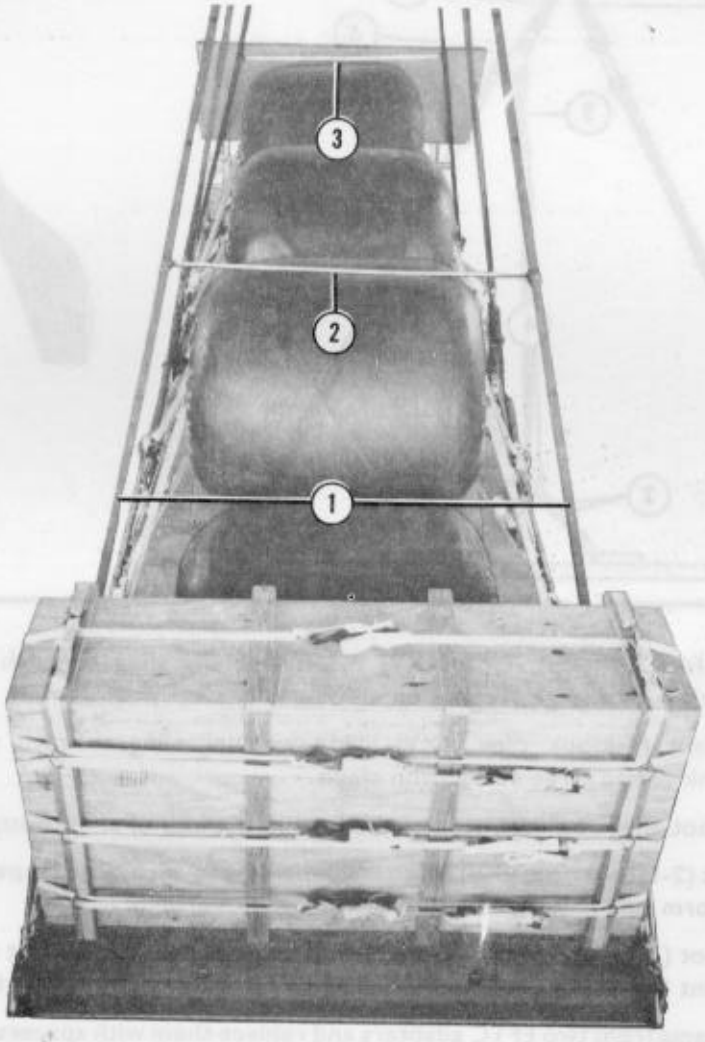
(8) Attach a 3-foot (4-loop), type XXVI nylon webbing sling to each rear suspension sling with a 3 3/4-inch, two-point link assembly.

(9) Place pressure-sensitive tape around the bolt and nut on all connecting links (not shown).

Figure 9-14. Suspension slings installed

9-9. Safetying Suspension Slings

Safety the suspension slings as shown in Figure 9-15.



(1) Raise the suspension slings.

(2) Tie a double length of 1/2-inch tubular nylon webbing between the front suspension slings at the same height as the top of drum 2.

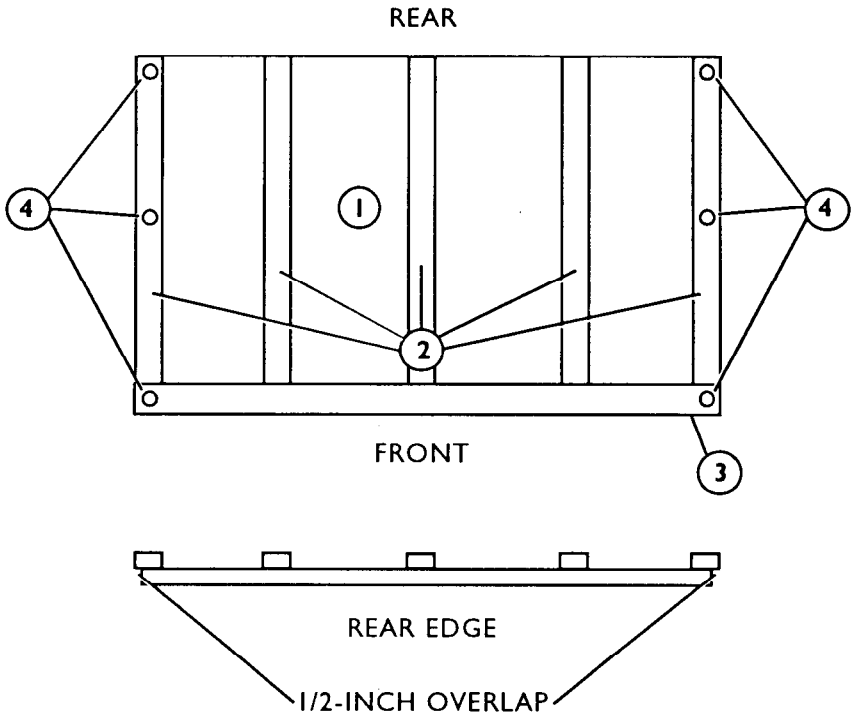
(3) Tie a double length of 1/2-inch tubular nylon webbing between the rear suspension slings at the same height as the top of drum 6.

Figure 9-15. Suspension slings safetied

9-10. Building and Installing Cargo Parachute Stowage Tray

Build the cargo parachute stowage tray as shown in Figure 9-16. Install the cargo parachute stowage tray as shown in Figure 9-17. Stow the cargo parachutes as shown in Figure 9-18.

Note: ***This drawing is not drawn to scale.***



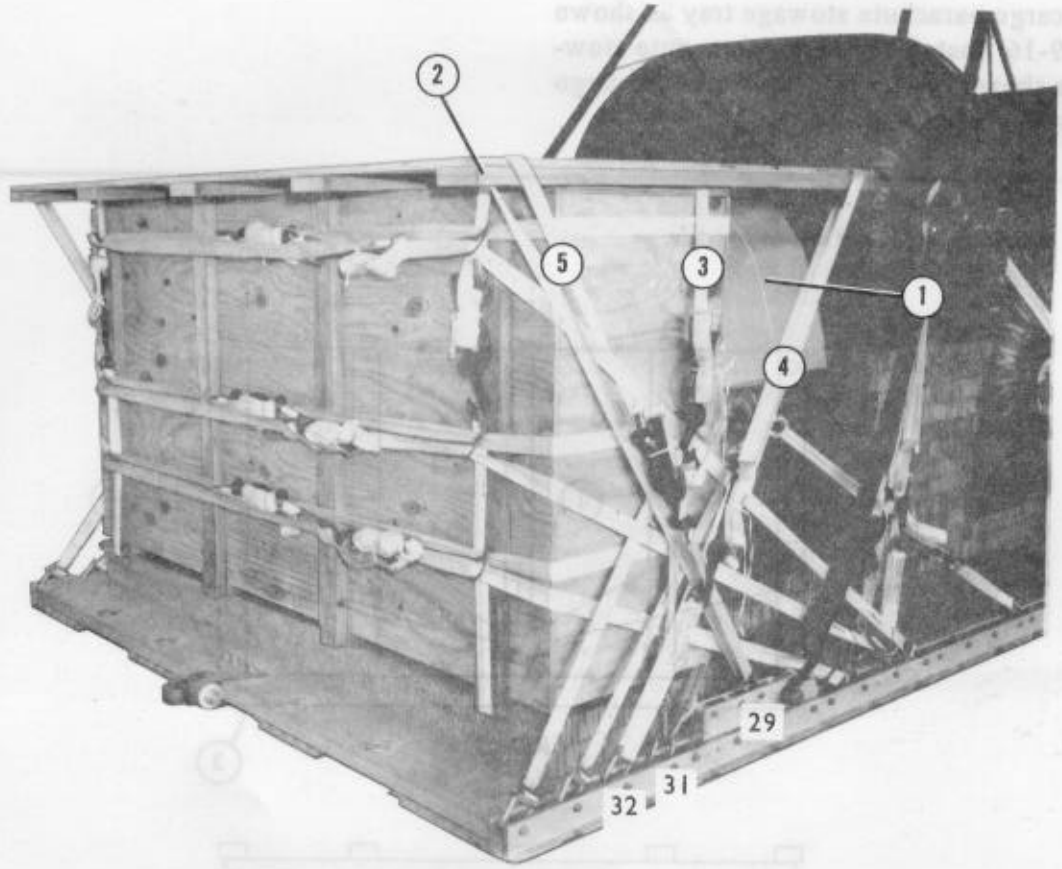
(1) Lay a 96- by 48-inch and a 96- by 12-inch piece of plywood side by side.

(2) Nail five 2- by 6- by 60-inch pieces of lumber to the plywood using eightpenny nails as shown above.

(3) Nail a 2- by 6- by 97-inch piece of lumber over the lateral pieces of lumber on the front edge of the tray using eightpenny nails.

(4) Drill six holes 3 inches on center from the edges of the plywood as shown above.

Figure 9-16. Cargo parachute stowage tray built



(1) Center a 24- by 96-inch piece of honeycomb over drum 7. Tape the top edges and secure the honeycomb to the drum with type III nylon cord.

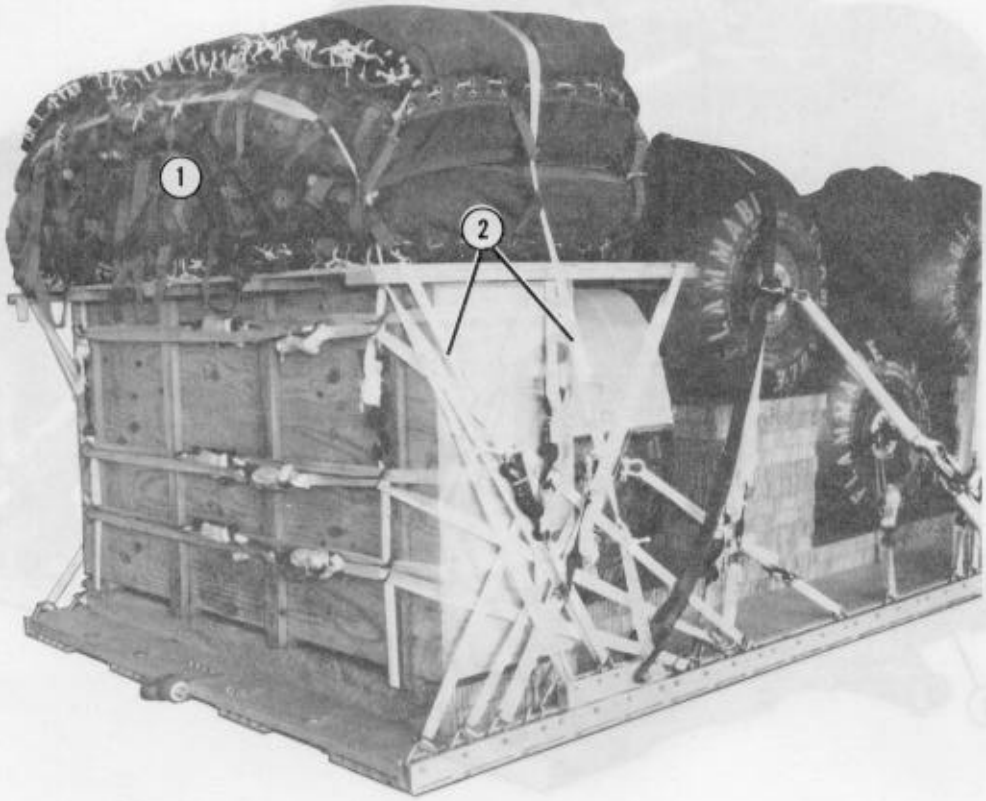
(2) Center the parachute tray over container 2 with the 2- by 6- by 97-inch piece of lumber resting on the honeycomb over drum 7.

(3) Attach 15-foot tie-down assemblies to clevises 31 and 31A by running the straps through their own D-rings. Run the straps through the center holes in the tray and secure them together with D-rings and a load binder on the side of the load.

(4) Adapt step 3 for the front holes of the parachute tray and clevises 32 and 32A.

(5) Adapt step 3 for the rear holes of the parachute tray and clevises 29 and 29A.

Figure 9-17. Cargo parachute stowage tray installed



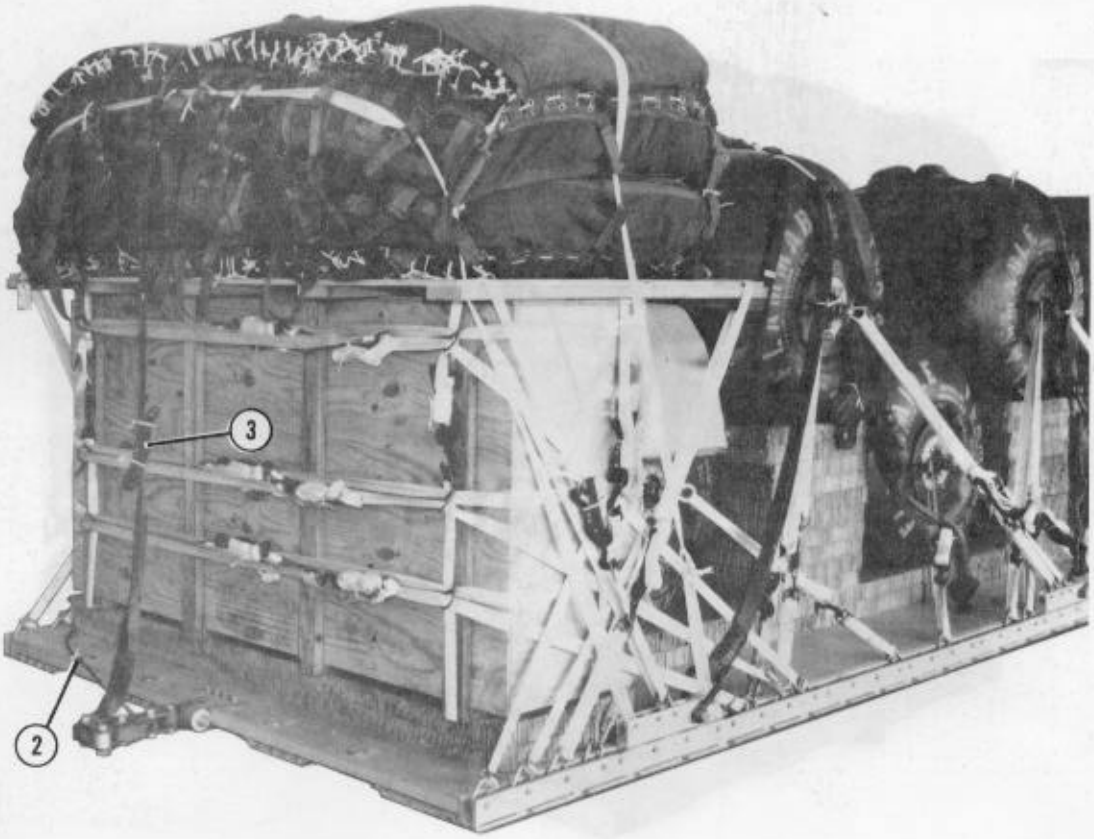
(1) Position and secure six G-11C cargo parachutes according to FM 10-500-2/TO 13C7-1-5.

(2) Restrain the parachutes to bushings 1 and 4 on the fourth suspension links.

Figure 9-18. Cargo parachutes stowed

9-11. Installing Extraction System

Install the EFTC as shown in Figure 9-19.



(1) Install the mounting brackets of the EFTC to the rearmost holes on the left platform side rail according to FM 10-500-2/TO 13C7-1-5 (not shown).

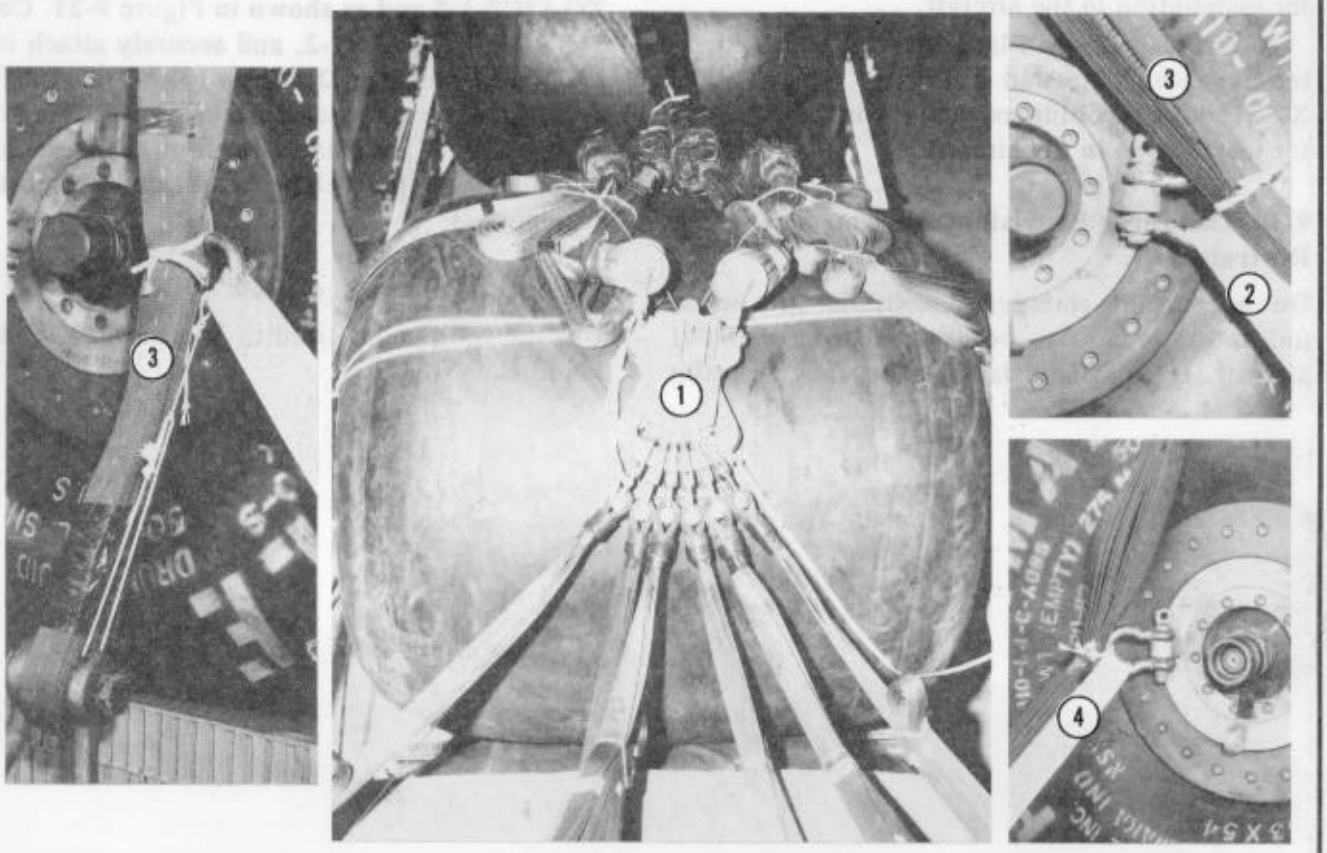
(2) Install a 28-foot cable to the actuator assembly. Allow no loops and S-fold the cable to take up the slack according to FM 10-500-2/TO 13C7-1-5.

(3) Attach a 9-foot (2-loop), type XXVI nylon webbing sling as a deployment line.

Figure 9-19. EFTC installed

9-12. Installing Parachute Release System

Install the M-2 cargo parachute release system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 9-20.



(1) Install the M-2 cargo parachute release system according to FM 10-500-2/TO 13C7-1-5.

(2) Tie the front suspension sling to the front shackle on drum 2 on each side using one turn double of type I, 1/4-inch cotton webbing.

(3) Tie the center suspension sling assembly to the front shackle on drum 4 on each side with one turn double of type I, 1/4-inch cotton webbing.

(4) Tie the rear suspension sling to the rear shackle on drum 6 by adapting the procedures in steps 2 and 3.

Figure 9-20. M-2 cargo parachute release system installed

9-13. Positioning Extraction Parachutes

Position the extraction parachutes as described below.

a. C-130 Aircraft. Place two 28-foot cargo extraction parachutes and a 60-foot (6-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

b. C-141 Aircraft. Place one 28-foot cargo extraction parachute and a 140-ft (3-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

9-14. Installing Provisions for Emergency Restraints

Do not install emergency restraint provisions unless the load is to be dropped from a C-141 aircraft. If so, attach large emergency restraint clevises to the tandem links according to FM 10-500-2/TO 13C7-1-5.

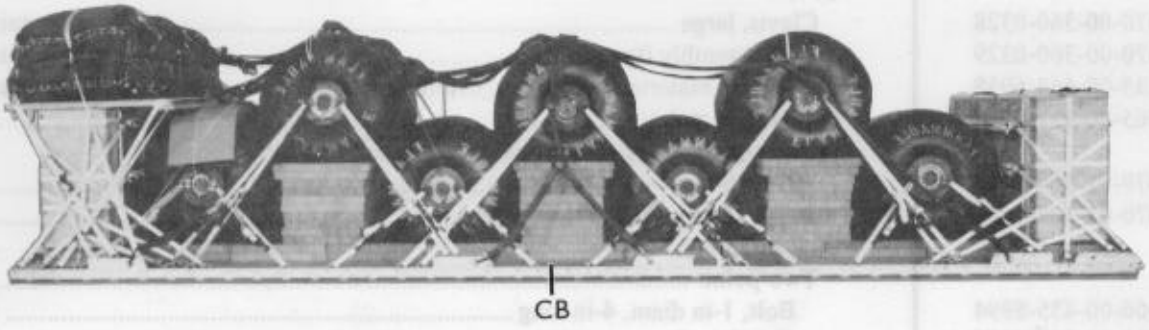
9-15. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 9-21. Complete DD Form 1387-2, and securely attach it to the load. Indicate on DD Form 1387-2 that the fuel drums have been prepared according to AFR 71-4/TM 38-250. If the load varies from the one shown in Figure 9-21, the weight, height, and CB must be recomputed.

9-16. Equipment Required

Use the equipment listed in Table 9-1 to rig this load.

CAUTION
Make the final rigger inspection required by FM 10-500-2/ TO 13C7-1-5 before the load leaves the rigging site.



Note: *A reversed print of the rigged load is used in the above photo.*

RIGGED LOAD DATA

Weight:	Load shown	28,000 pounds
	Maximum load allowed	30,000 pounds
Height		95 inches
Width		108 inches
Length		384 inches
Overhang:	Front	0 inches
	Rear	0 inches
CB (from front edge of platform)		202 inches
Extraction System		EFTC

Figure 9-21. FARE with seven 500-gallon fuel drums rigged for low-velocity airdrop on a type V platform

Table 9-1. Equipment required for rigging FARE with seven 500-gallon fuel drums for low-velocity airdrop on a type V platform

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal	As required
4030-00-090-5354	Clevis, suspension, 1-in (large)	10
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-157-6527	Coupling, airdrop, extraction force transfer w 28-ft cable	1
	Cover:	
1670-00-360-0328	Clevis, large	As required
1670-00-360-0329	Link assembly (type IV)	As required
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
5365-00-937-0147	D-ring, heavy-duty, 10,000-lb	24
	Line, extraction, type XXVI nylon webbing:	
1670-01-064-4454	60-ft (6-loop) (C-130)	1
1670-01-107-7651	140-ft (3-loop) (C-141)	1
	Link assembly:	
	Two-point:	3
5306-00-435-8994	Bolt, 1-in diam, 4-in long	(6)
5310-00-232-5165	Nut, 1-in, hexagonal	(6)
	Plate, side:	
1670-00-003-1953	3 3/4-in	(4)
1670-00-003-1954	5 1/2-in	(2)
5365-00-007-3414	Spacer, large	(6)
1670-00-783-5988	Type IV	6
	Lumber:	
5510-00-220-6146	2- by 4-in:	
	24-in	8
	27-in	8
	50 1/4-in	16
5510-00-220-6148	2- by 6-in:	
	60-in	5
	97-in	1
5315-00-010-4659	Nail, steel wire, common, 8d	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	
	3- by 36- by 96-in:	32 sheets
	8- by 22-in	(2)
	22- by 23-in	(2)
	22- by 32-in	(6)
	22- by 36-in	(6)
	22- by 94-in	(2)
	24- by 96-in	(1)
	60- by 30-in	(26)
	60- by 34-in	(3)
	60- by 36-in	(16)
	96- by 24-in	(4)

Table 9-1. Equipment required for rigging FARE with seven 500-gallon fuel drums for low-velocity airdrop on a type V platform (continued)

National Stock Number	Item	Quantity
	Parachute:	
1670-01-016-7841	Cargo, G-11C	6
	Cargo extraction, heavy-duty:	
1670-00-040-8135	28-ft (C-130)	2
1670-00-040-8135	28-ft (C-141)	1
	Platform, AD, type V, 32-ft:	1
	Bracket:	
1670-01-162-2375	Inside EFTA	(1)
1670-01-162-2374	Outside EFTA	(1)
1670-01-162-2372	Clevis assembly	(76)
1670-01-162-2376	Extraction bracket assembly	(1)
1670-01-247-2389	Suspension link	(8)
1670-01-162-2381	Tandem link (multipurpose)	(2)
5530-00-128-4981	Plywood, 3/4-in:	
	12- by 96-in	(1)
	22 1/2- by 48-in	(4)
	22 1/2- by 94 1/2-in	(2)
	24- by 96-in	(1)
	48- by 96-in	(5)
1670-01-097-8817	Release, cargo parachute, M-2	1
	Sling, cargo airdrop, type XXVI nylon webbing:	
	For deployment line:	
1670-01-062-6304	9-ft (2-loop)	1
	For lifting and for suspension:	
1670-01-062-6306	3-ft (4-loop)	8
1670-01-062-6304	9-ft (2-loop)	2
1670-01-062-6303	12-ft (2-loop)	14
1670-01-063-7761	16-ft (2-loop)	2
1670-01-064-4453	20-ft (4-loop)	4
	For riser extensions:	
1670-01-062-6311	120-ft (2-loop)	6
1670-00-040-8219	Strap, parachute release, multicut comes w 3 knives	1
	Tape, adhesive:	
7510-00-266-6710	Masking, 2-in	As required
7510-00-266-5016	PSA, cloth back, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-ft	114
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required

Table 9-1. Equipment required for rigging FARE with seven 500-gallon fuel drums for low-velocity airdrop on a type V platform (continued)

National Stock Number	Item	Quantity
	Nylon:	
	Tubular:	
8305-00-082-5752	1/2-in, natural	As required
	or	
8305-00-268-2453	1/2-in, olive drab	As required
8305-00-261-8584	Type X, treated, olive drab	As required
	or	
8303-00-260-6890	Type X, untreated	As required

CHAPTER 10

RIGGING THE 4-INCH, 350-GPM WHEEL-MOUNTED POL PUMPING ASSEMBLY WITH FILTER/SEPARATOR

10-1. Description of Load

The 4-inch, 350-GPM wheel mounted POL pumping assembly with filter/separator (Figure 10-1) is rigged on a 16-foot type V platform for low-velocity airdrop with two G 11cargo parachutes. It consists of two pumps, each weighing 2,100 pounds and two filter/separators each weighing 425 pounds. It is approximately 76 3/4 inches in height, 108 inches in width and 211 inches in length with an overhang of 5 inches in front and 17 inches in the rear. The total rigged weight with parachutes is 7,880 pounds.

10-2. Preparing Platform

Prepare a 16-foot type V platform using two tandem links, four suspension links and sixteen tie-down clevises as shown in Figure 10-2.

Notes:
1. The nose bumper may or may not be installed.
2.Measurements given in this section are from the front edge of the platform, not from the front edge of the nose.

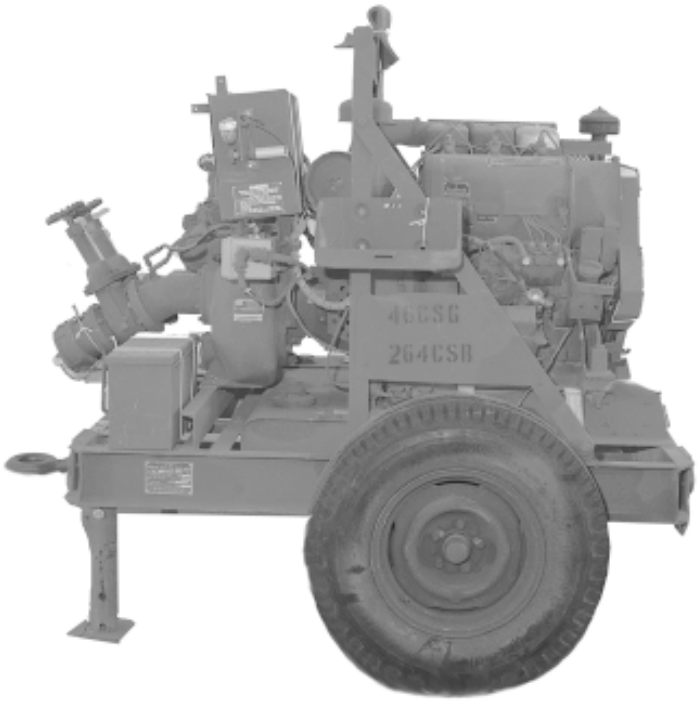
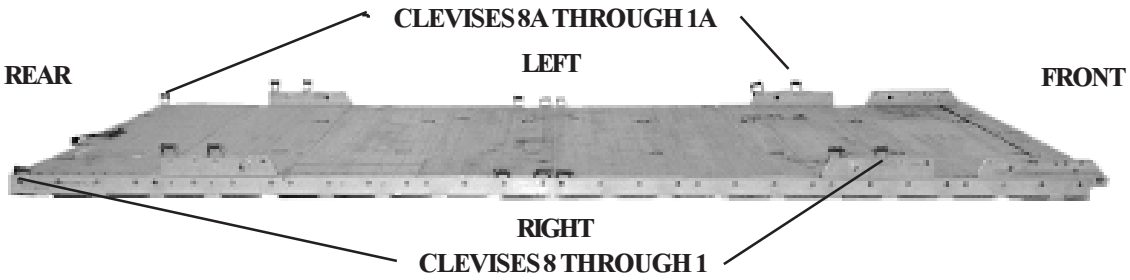


Figure 10-1.Pumping assembly with filters/separators



Step:

1. Install a tandem link to the front of each platform side rail using holes 1, 2, and 3.

2. Install a suspension link to each side rail using holes 6, 7, 8, 25, 26 and 27.

3. Install a clevis on bushings 3 and 4 on the forward suspension links.

4. Install a clevis on bushings 1 and 4 on the aft suspension links.

5. Starting at the front of each platform side rail, install clevises on the bushings bolted on holes 16, 17, 18, and 32.

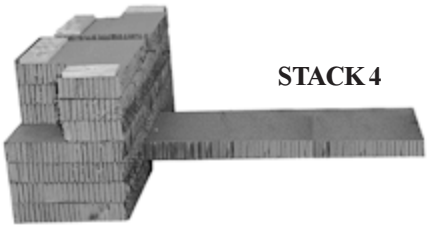
6. Starting at the front of the platform, number the clevises 1 through 8 on the right side and 1A through 8A on the left side.

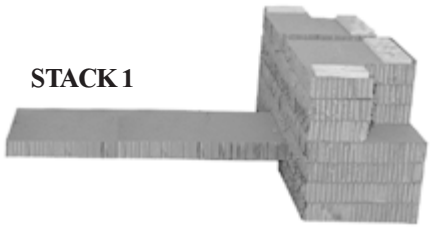
7. Label the tie-down rings according to FM 10-500-2/TO 13C7-1-5.

Figure 10-2. Platform prepared

10-3. Preparing Honeycomb Stack

Build honeycomb stacks as shown in Figures 10-3 through 10-6.

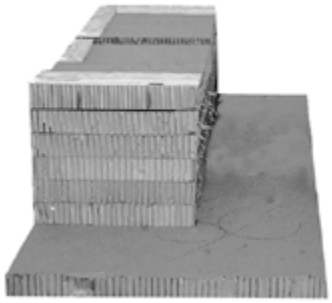




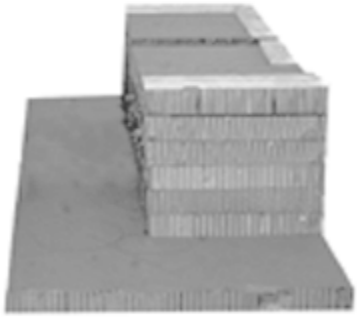
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1 & 4	1	51	16	Honeycomb	Form base.
	2	16	16	Honeycomb	Glue one end on each side of the base.
	1	16	64	Honeycomb	Glue one end centered between the 16-inch by 16- inch pieces and flush with the front edge of the base.
	2	51	16	Honeycomb	Glue on base.
	2	51	16	Honeycomb	Notch the right and left corners of each piece with a 8-inch by 8-inch cut and glue one on the right side and one on the left side.
	2	4	7	3/4-inch Plywood	Glue one on the right and left side of the base.
	2	14	4	3/4-inch Plywood	Glue one on the right and left side of the base.

Figure 10-3. Honeycomb stacks 1 and 4 prepared

Stack 2



Stack 3



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
2 & 3	1	80	36	Honeycomb	Center bridge from stack 1 with bridge end flush with outside edge of base and glue. Repeat step for stack 4.
	2	16	20	Honeycomb	Glue one piece on the right and left sides of the bridge 14 1/2-inches from the right and left sides of the base and flush with the outside edge of the base.
	4	51	20	Honeycomb	Glue to base.
	2	23	20	Honeycomb	Glue one piece to each side of the base.
	1	4	20	3/4-inch Plywood	Glue to the right front edge of the base.
	1	10	4	3/4-inch Plywood	Glue to the right rear edge of the base.
	1	23	4	3/4-inch Plywood	Glue to the left rear edge of base.
	1	4	16	3/4-inch Plywood	Glue to the left side of the base.

Figure 10-6. Honeycomb Stacks 2 and 3 prepared

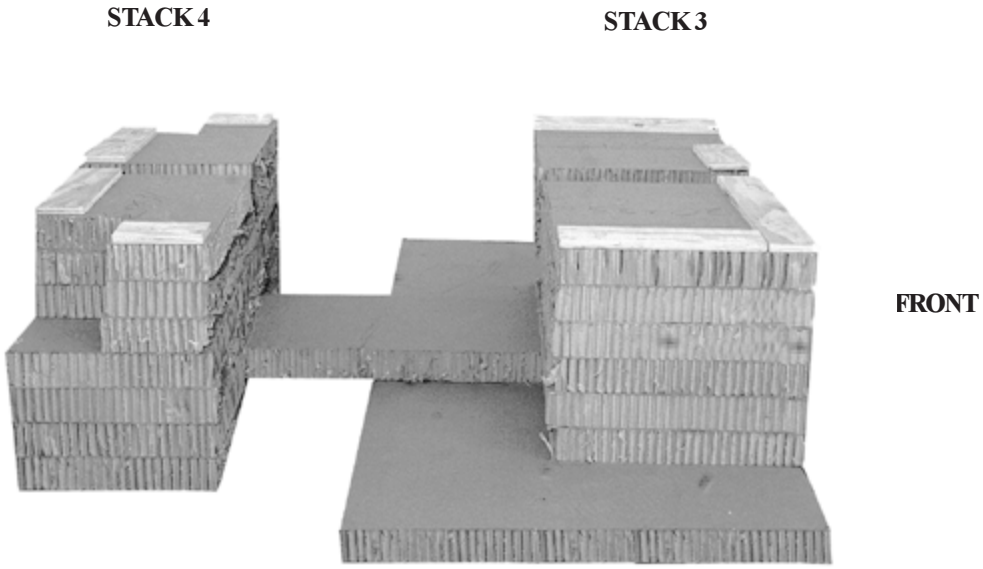


Figure 10-4. Honeycomb stacks 3 and 4 prepared

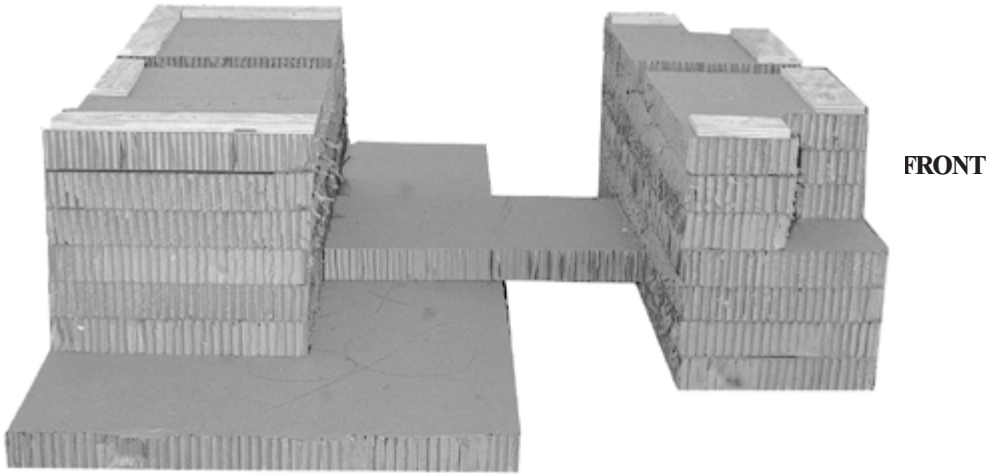
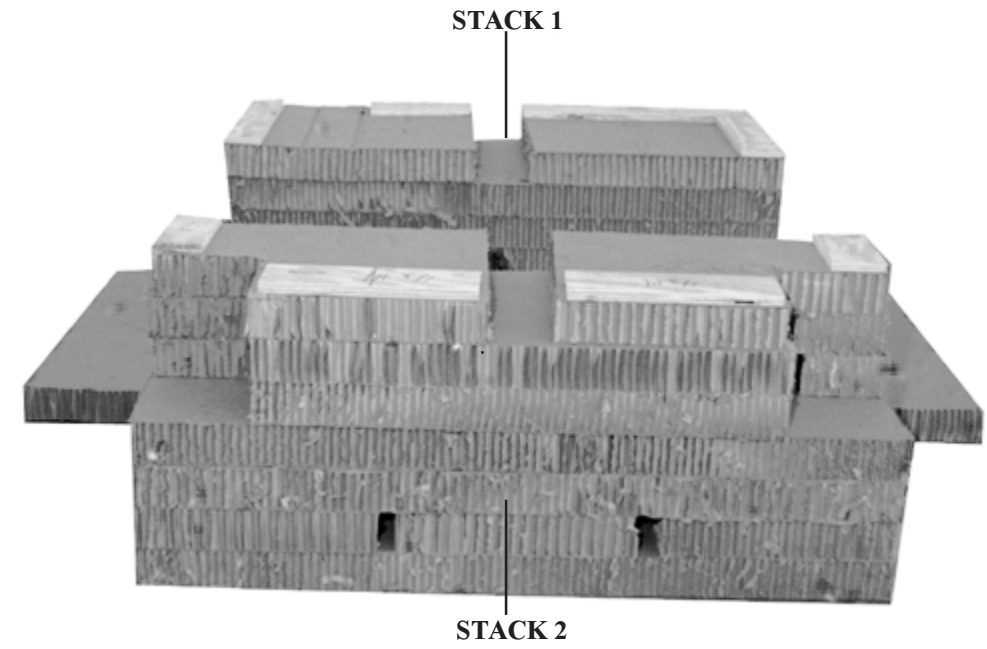


Figure 10-5. Honeycomb Stacks 2 and 1 Prepared



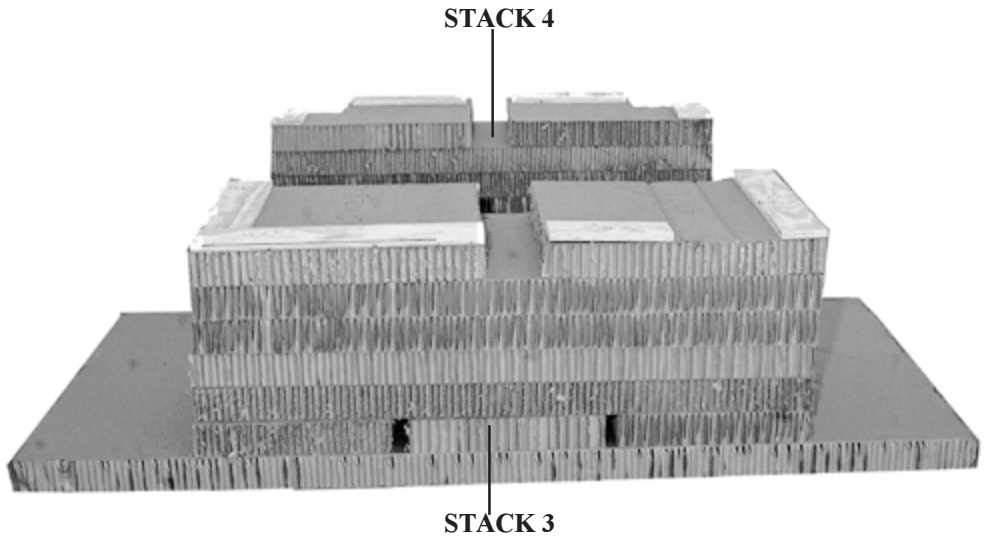
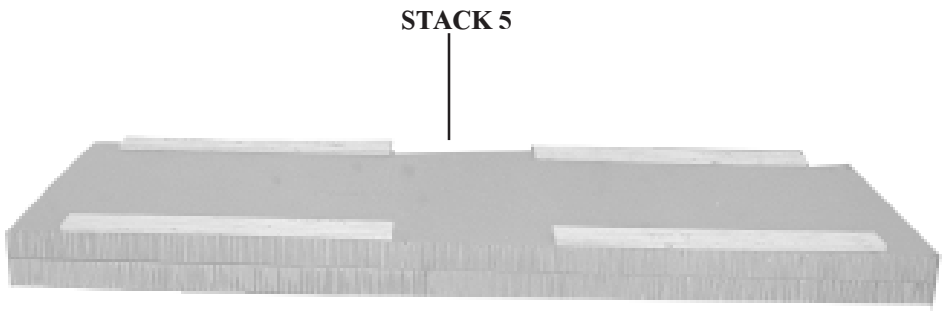


Figure 10-7. Honeycomb stacks 1, 2, 3, and 4 prepared

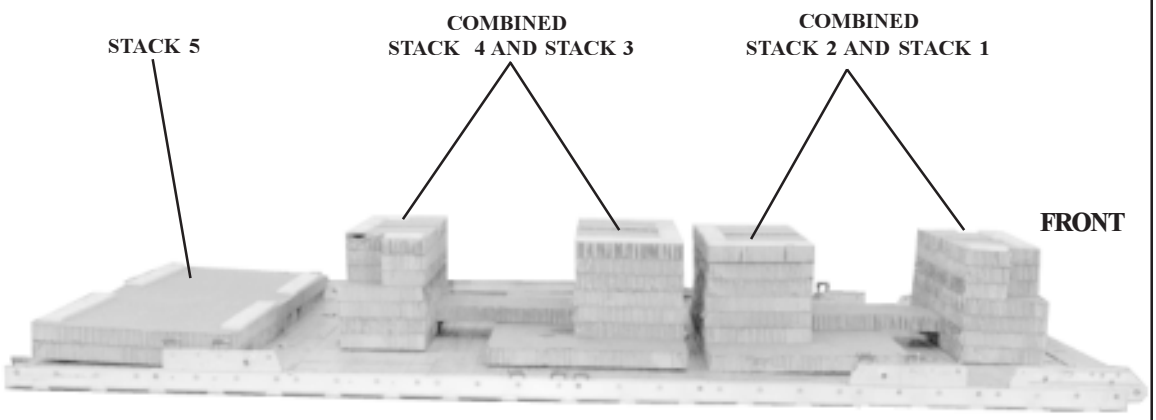


Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
5	2	96	36	Honeycomb	Glue both pieces together to form base.
	4	34	4	3/4-inch Plywood	Glue a 6-inch piece of 3/4-inch plywood flush with the forward and rear edges, 2 1/2-inches from the left and right sides.

Figure 10-8. Honeycomb Stack 5 Prepared

10-4. Positioning Honeycomb Stacks

Position honeycomb stacks as shown in Figure 10-9.



Step:

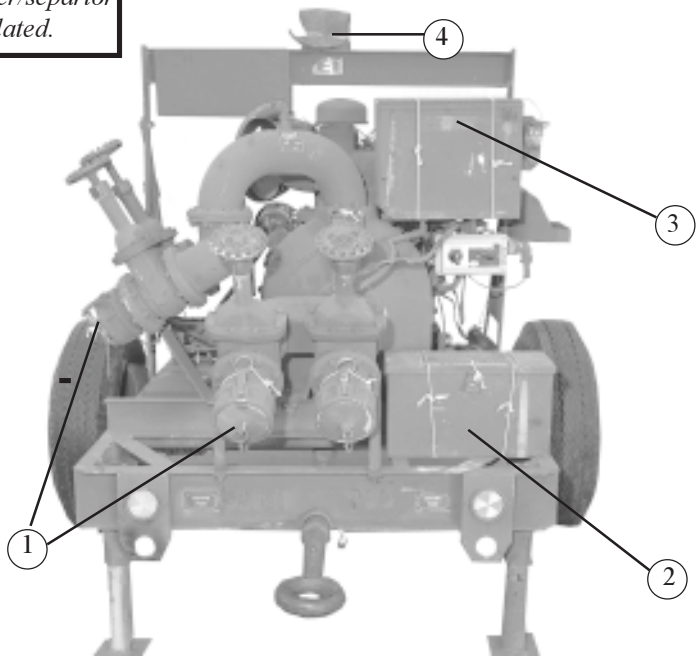
1. Place combined stack 1 and stack 2 centered and 6 inches from the front edge of the platform.
2. Place combined stack 3 and stack 4 centered and 6 inches from stack 2.
3. Place stack 5 centered and 4 inches from the rear edge of the platform.

Figure 10-9. Honeycomb stacks positioned

10-5. Preparing the Pump Assembly and Filter/Separator

Prepare the pump assembly and filter/separator as shown in Figure 10-10.

Note:
The fuel pump must be drained of all fuel and the filter/separtor purged and left ventilated.



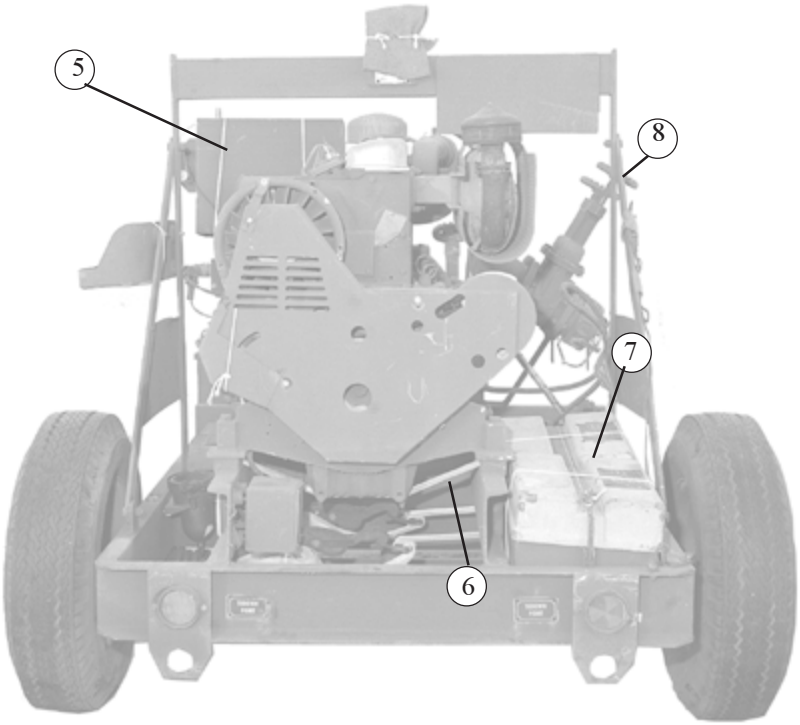
(1) Secure all fuel caps with type III nylon cord.

(2) Secure lid to storage box with type III nylon cord.

(3) Secure cover to control panel with type III nylon cord.

(4) Cover top lifting point with felt and secure with type III nylon cord.

Figure 10-10. Pump assembly and filter/separator prepared



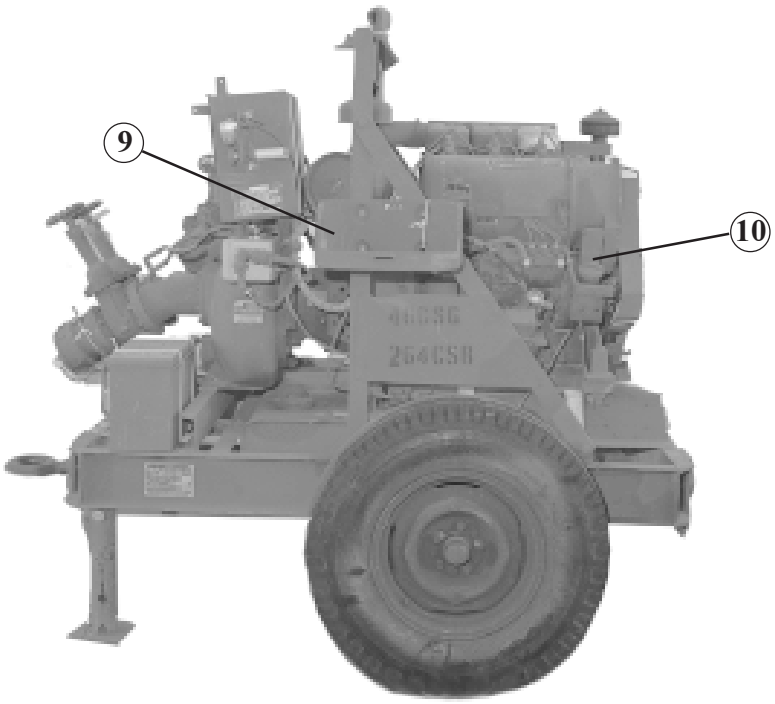
(5) Secure the starter/speed control box to the attaching bracket with type III nylon cord.

(6) Support the engine by running two 15-foot lashings around the frame supports and under the oil pan. Space the lashings to the front and rear of the oil pan.

(7) Remove the battery box lids and secure each battery to its own box with type III nylon cord. Replace the lids and secure in place with 1/2- inch tubular webbing, going around both boxes and bottom supports.

(8) Secure the ground rod in its holder with type III nylon cord.

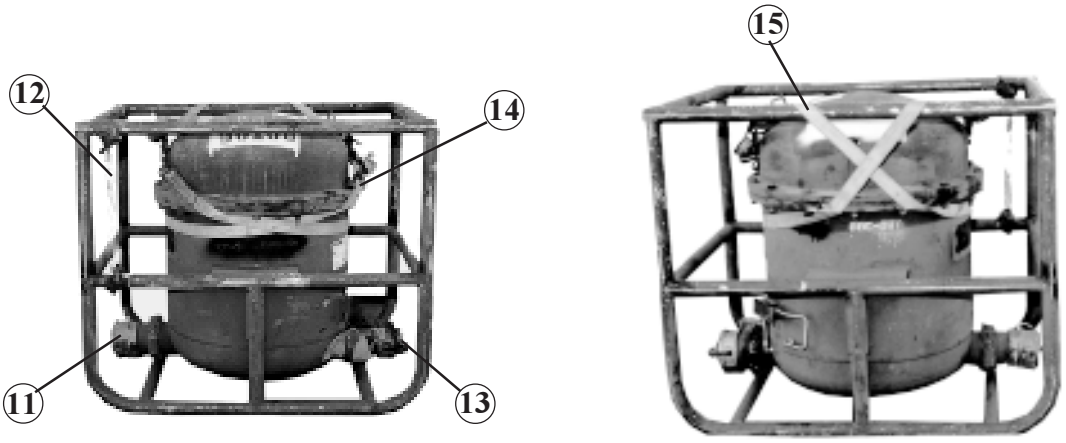
Figure 10-10. Pump assembly and filter/separator prepared (continued)



(9) Secure fuel can bracket to frame with type III nylon cord.

(10) Tape oil cap in place with cloth back adhesive tape.

Figure 10-10. Pump assembly and filter/separator prepared (continued)



(11) Secure fuel caps on the filter/separator with type III nylon cord.

(12) Secure the ground cable to the frame with cloth back adhesive tape.

(13) Pad the small outlet valve with cellulose and cloth back adhesive tape.

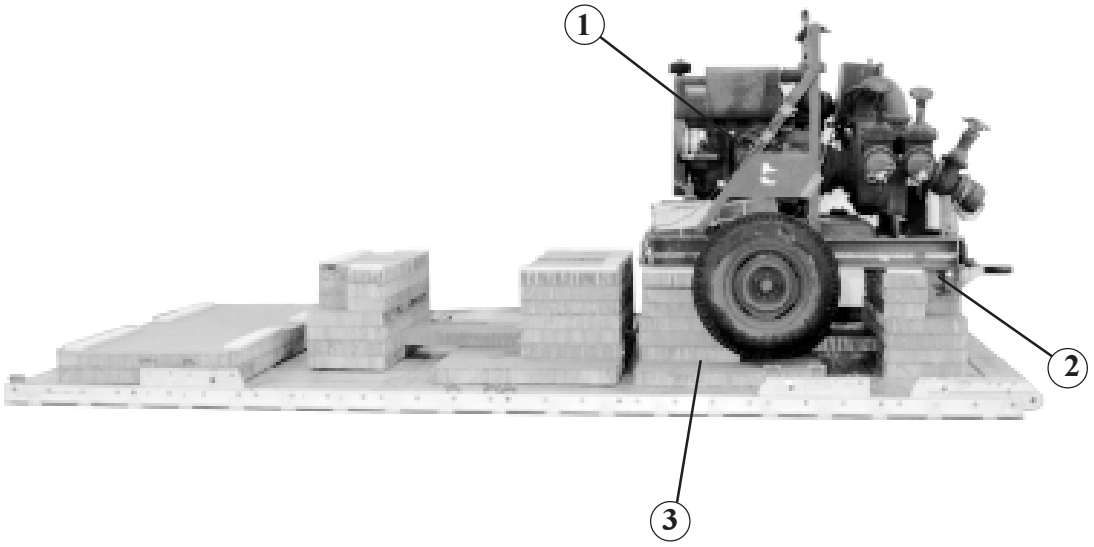
(14) Run a 15-foot lashing around the filter under the bolted top on the inlet side and around the top lateral frame support and secure.

(15) Run another 15-foot lashing around the filter under the bolted top on the outlet side and around the top lateral frame support and secure.

Figure 10-10. Pump assembly and filter/separator prepared (continued)

10-6. Positioning the Pump Assembly and Filter/Separator

Position the pump assembly and filter/separator as shown in Figure 10-11.

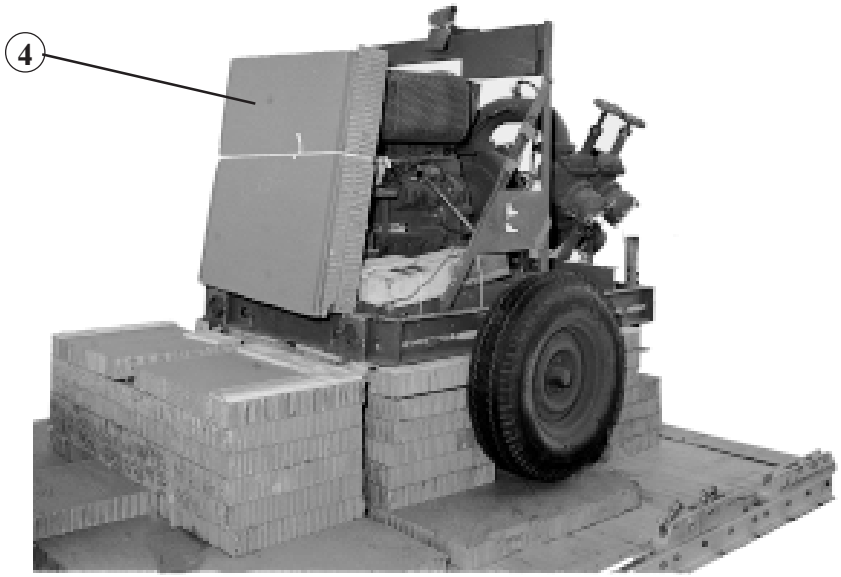


(1) Position the first pump assembly with the lunette 4 1/2 inches forward of the front edge of the platform.

(2) Retract legs.

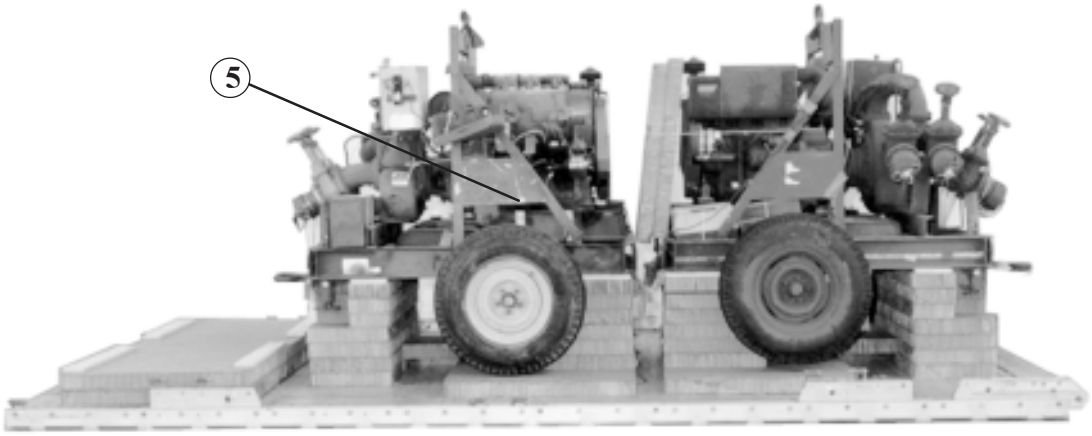
(3) Center on honeycomb stacks combination 1 and 2.

Figure 10-11. Pump assembly and filter/separator positioned



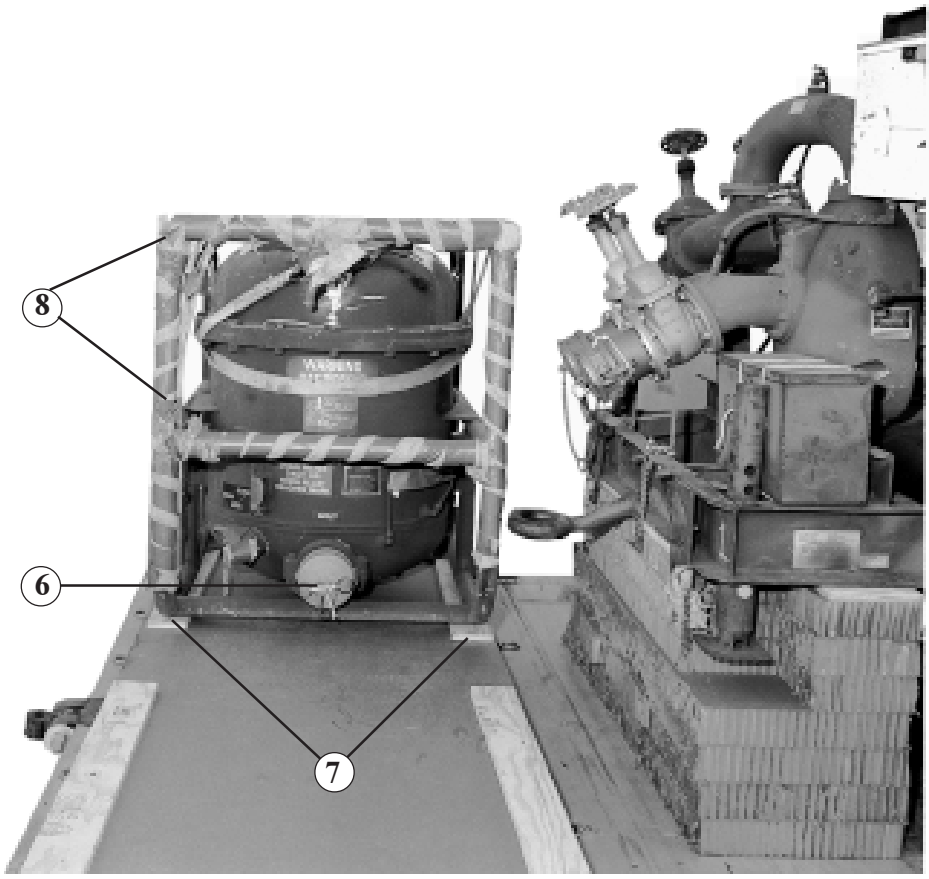
(4) Cut and tie two pieces of 32-inch wide by 36-inch long honeycomb to the rear of the pump assembly.

Figure 10-11. Pump assembly and filter/separator positioned (continued)



(5) Position the second pump assembly 6 inches (measured from frame to frame) from the front pump and center on the combination honeycomb stacks 3 and 4.

Figure 10-11. Pump assembly and filter/separator positioned (continued)

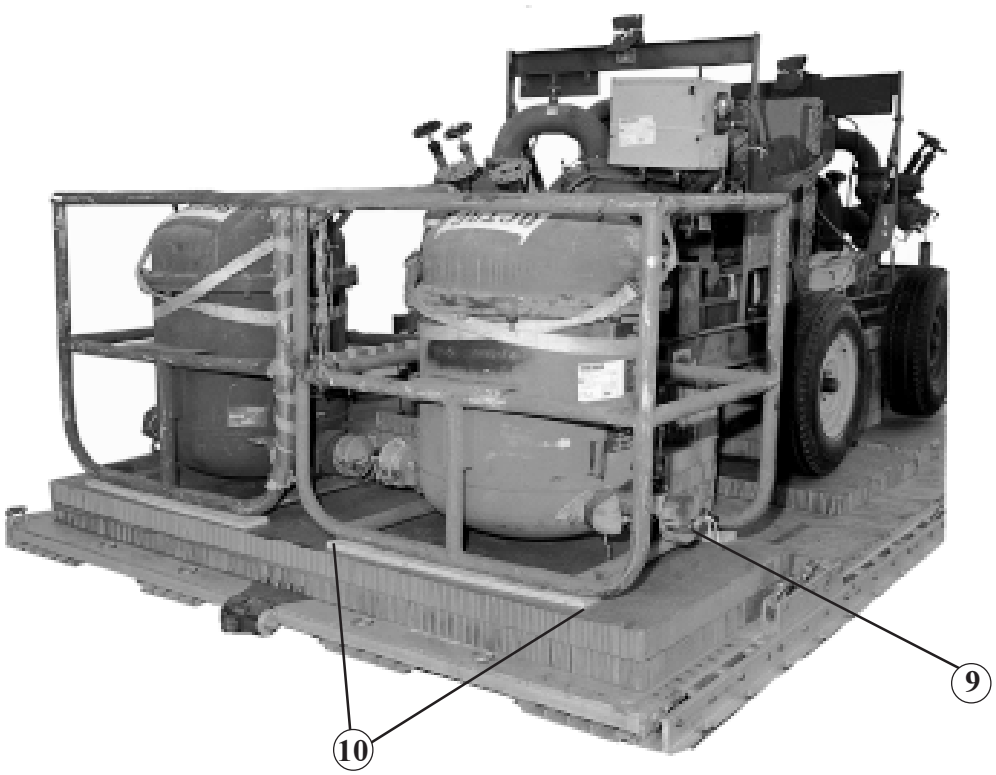


(6) Position one of the filters with the outlet valve to the center of the platform.

(7) Center the filter evenly on the plywood and on the left side of honeycomb stack 5.

(8) Pad the right side of the frame with cellulose wadding and tape in place.

Figure 10-11. Pump assembly and filter/separator positioned (continued)



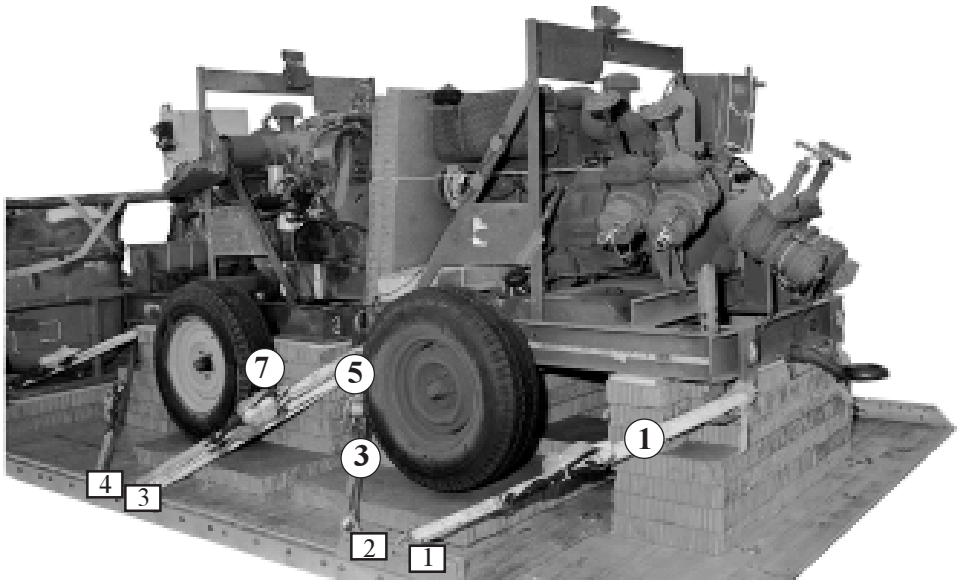
(9) Position the second filter with the outlet valve facing to the right side of the platform.

(10) Center the filter evenly on the plywood and on the right side of honeycomb stack 5.

Figure 10-11. Pump assembly and filter/separator positioned (continued)

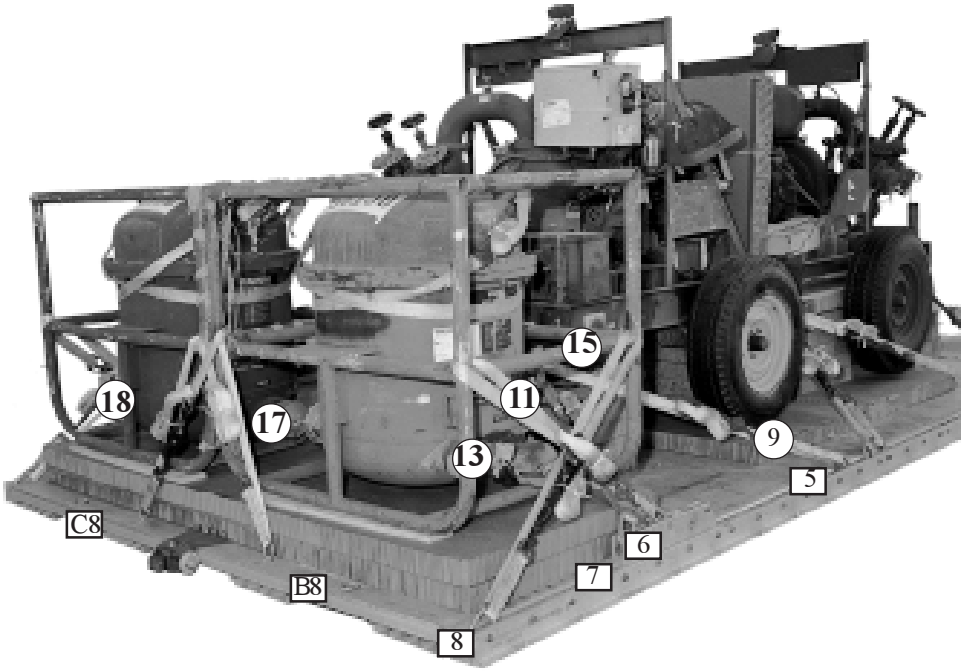
10-7. Lashing the Pump Assembly and Filter/Separator to the Platform

Lash the pump assembly and filter/separator to the platform using eighteen 15-foot tie-down assemblies as shown in Figures 10-12 and 10-13.



Lashing Number	Clevis Number	Instructions
		Pass lashing:
1	1	Through tie-down point number 1, right front side.
2	1A	Through tie-down point number 1, left front side.
3	2	Through tie-down point number 2, right rear side.
4	2A	Through tie-down point number 2, left rear side.
5	3	Through tie-down point number 2, right rear side.
6	3A	Through tie-down point number 2, left rear side.
		Note: Aft pump is pointed rearwards.
7	4	Through tie-down point number 2, left rear side.
8	4A	Through tie-down point number 2, right rear side.

Figure 10-12. Lashings 1 through 8 installed

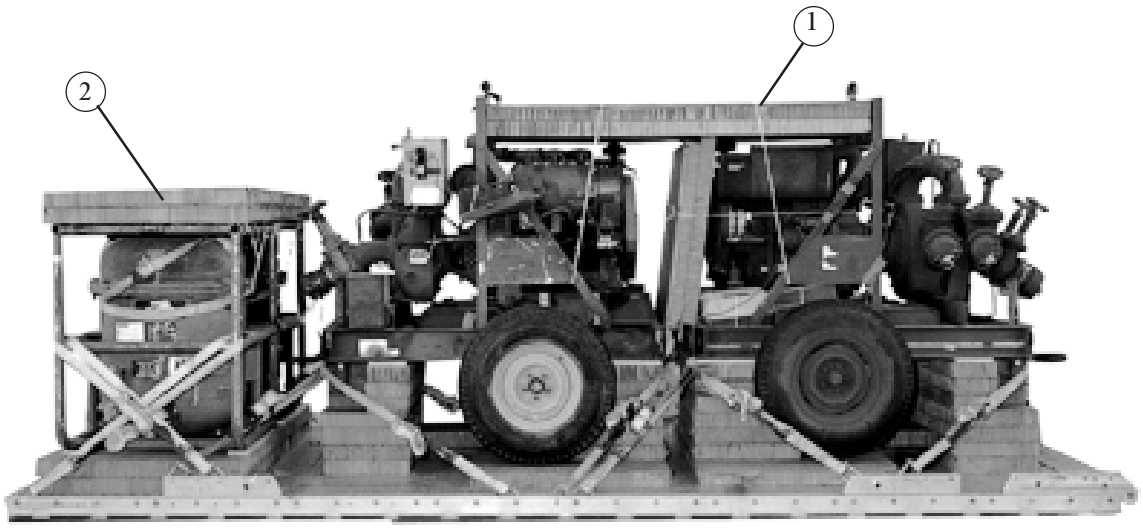


Lashing Number	Clevis Number	Instructions
		Pass lashing:
9	5	Through tie-down point number 1, left front side.
10	5A	Through tie-down point number 1, right front side.
11	7	Through tie-down point number 1, left front side.
12	7A	Through tie-down point number 1, right front side.
13	6	Through and around right rear vertical frame.
14	6A	Through and around left rear vertical frame.
15	8	Through and around right front vertical frame.
16	8A	Through and around left front vertical frame.
17	B8	Through and around both center rear vertical frames.
18	C8	Through and around both center rear vertical frames.

Figure 10-13. Lashings 9 through 18 installed

10-8. Constructing the Parachute Tray and Load Cover

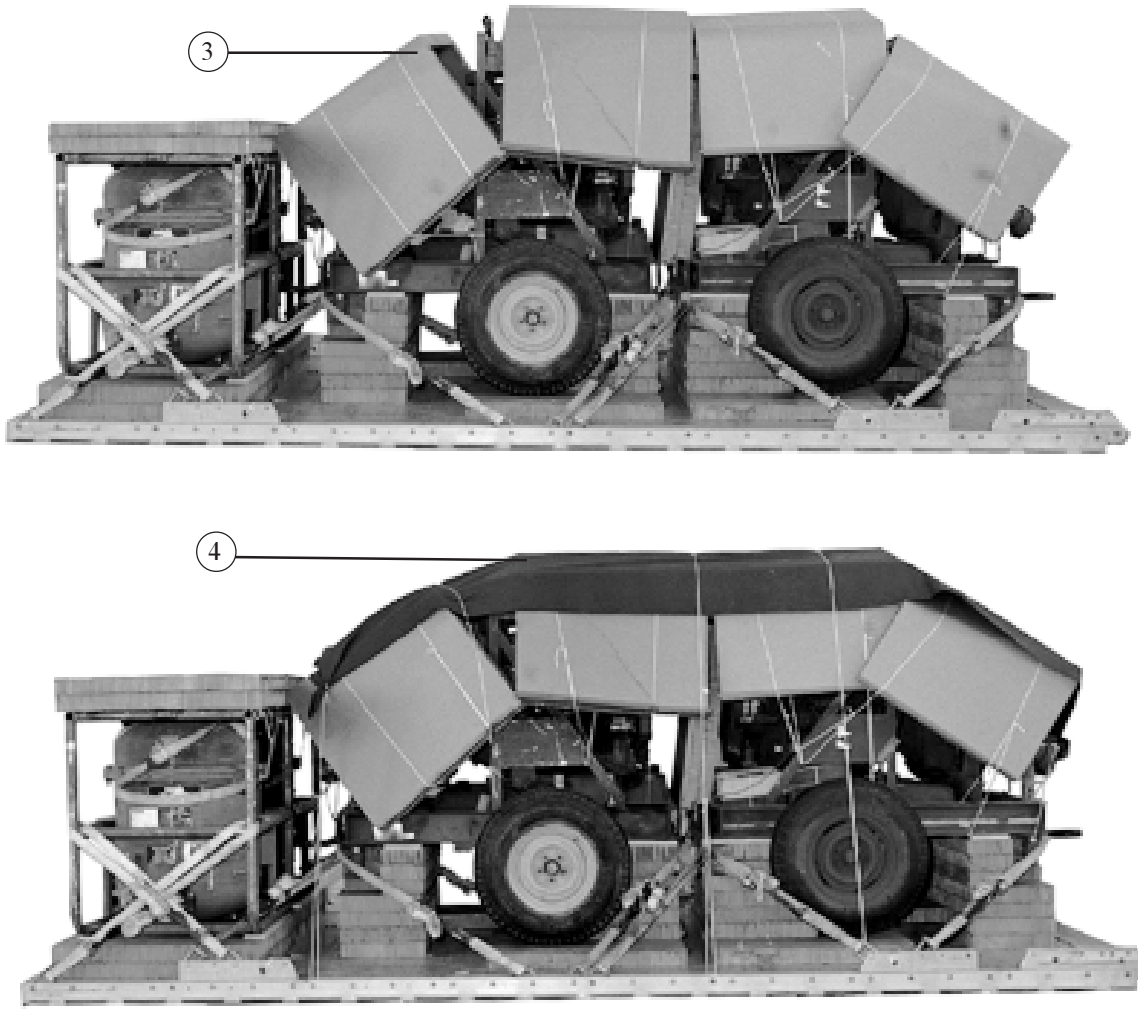
Construct the parachute tray and load cover as shown in Figures 10-14..



(1) Position two pieces of 36-inch by 96-inch honeycomb on top of the filters. Secure them to the filters with type III nylon cord.

(2) Cut two pieces of 36-inch by 72-inch honeycomb and position them on top of the two pumps. Secure in place with type III nylon cord.

Figure 10-14. Parachute tray and cover contructed



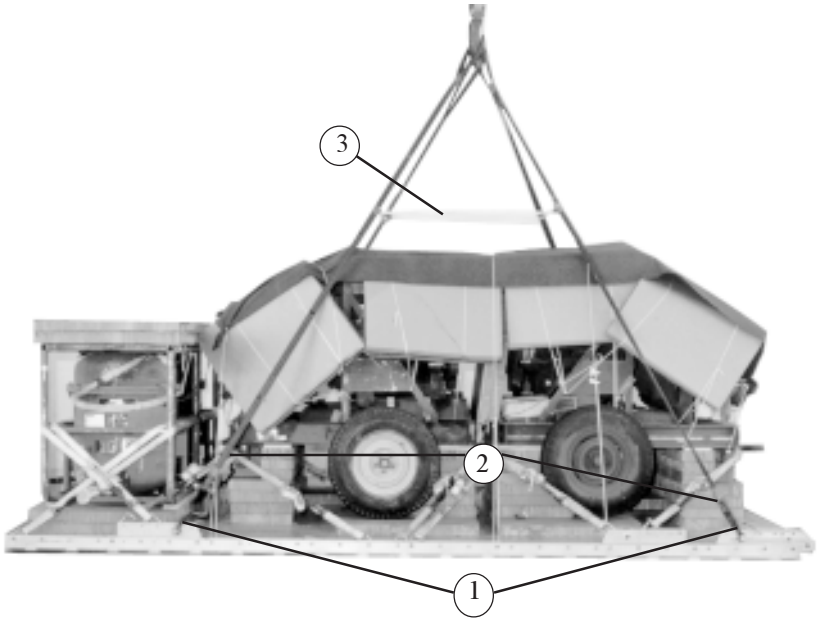
(3) Position and bend four sheets of 36-inch by 96-inch honeycomb over the two pumps. Place two sheets in the center and one sheet on each end of the pumps. Secure in place with type III nylon cord.

(4) Position a 5-foot by 15-foot load cover over the honeycomb in step number 3. Secure in place with type III nylon cord.

Figure 10-14. Parachute tray and cover construced (continued)

10-9. Installing the Suspension Slings and Deadman's Tie

Install the suspension slings and deadman's tie as shown in Figure 10-15.



(1) Attach a large clevis to each front suspension link and two large clevises to each rear suspension link and tie the two clevises together with type III nylon cord.

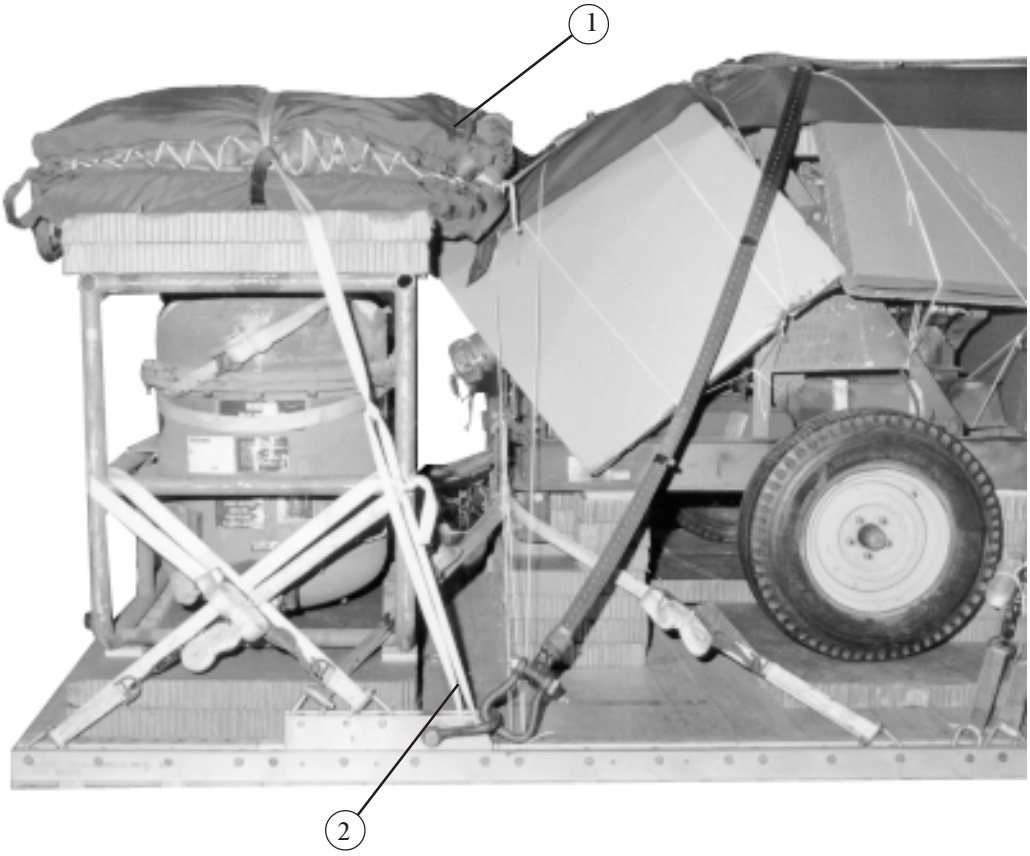
(2) Attach a 12-foot (2-loop), type XXVI nylon suspension sling to each clevis on the front suspension links and each set of large clevises on the rear suspension links.

(3) Raise the slings and install the deadman's tie according to FM 10-500-2/TO 13C7-1-5.

Figure 10-15. Suspension slings and deadman's tie installed

10-10. Preparing, Stowing and Restraining Cargo Parachutes

Prepare, stow and restrain two G 11 cargo parachutes on the parachute stowage tray according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 10-16.



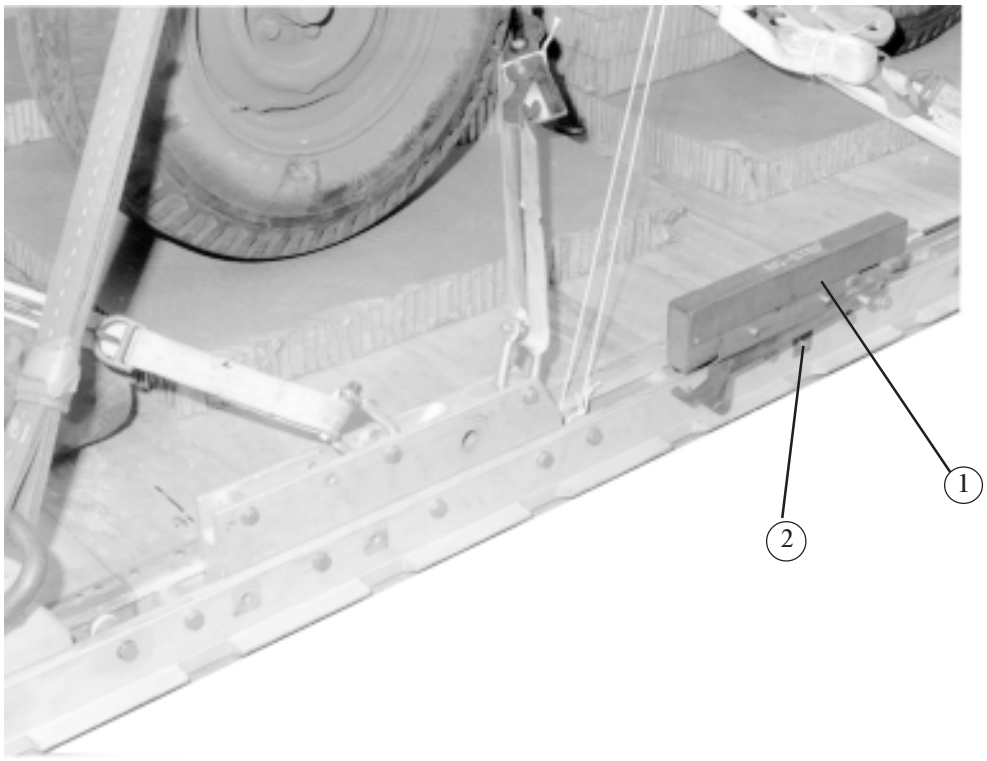
(1) Prepare, stow, and restrain two G-11 cargo parachutes on the parachute stowage tray according to FM 10-500-2/TO 13C7-1-5.

(2) Restrain the parachutes using bushing 1 on each rear suspension link.

Figure 10-16. Cargo parachutes prepared

10-11. Installing the Extraction System

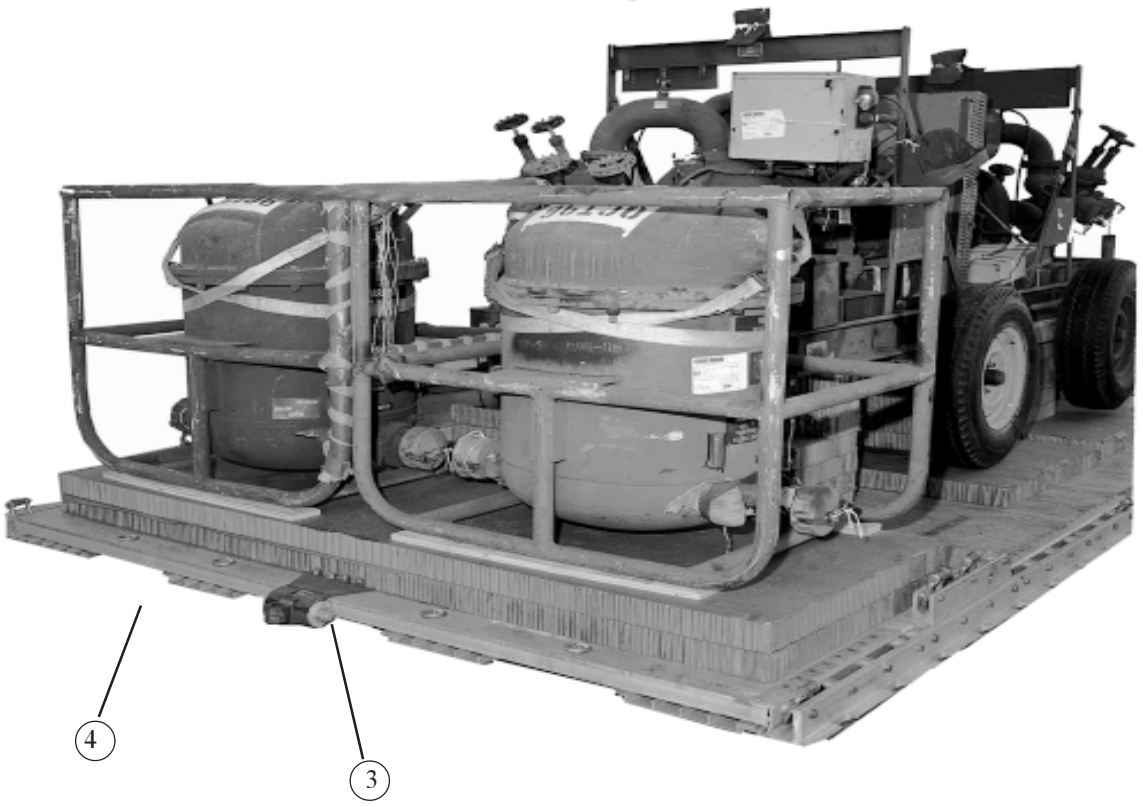
Install the components of the extraction force transfer coupling (EFTC) according to FM-500-2/TO 13C7-1-5 and as shown in Figure 10-17.



(1) Install the components of the EFTC according to FM 10-500-2/ TO 13C7-1-5.

(2) Use the rear mounting holes for the EFTC bracket.

Figure 10-17. Extraction system installed



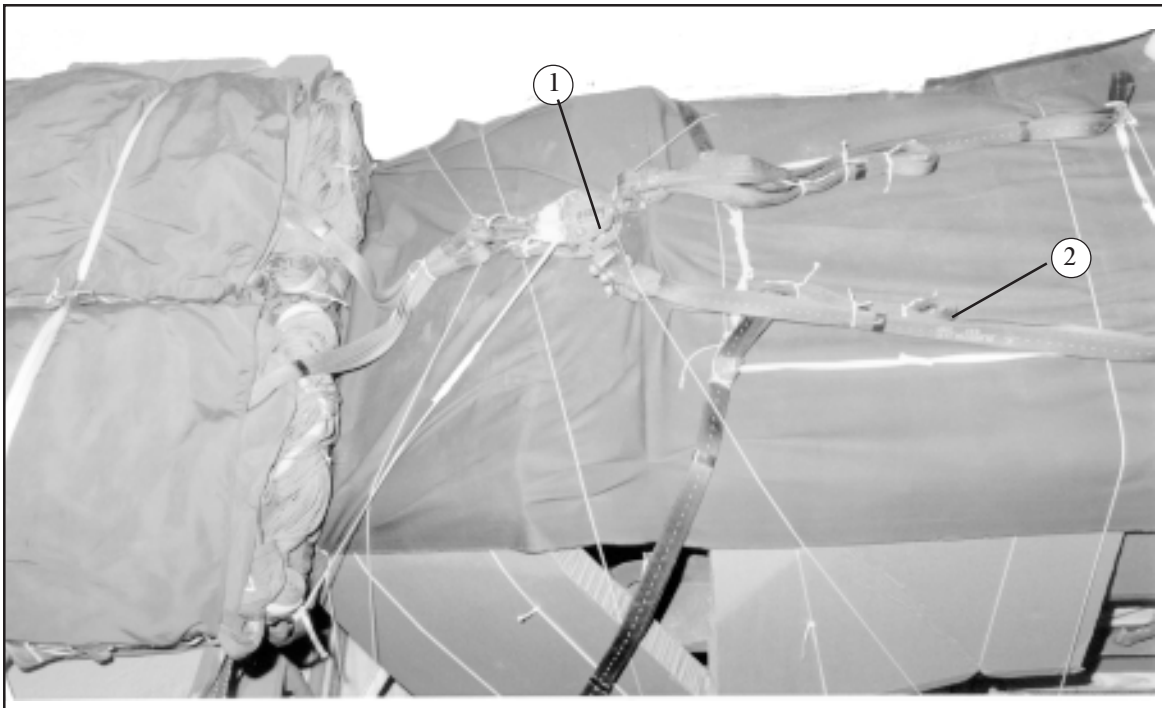
(3) Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment sling.

(4) Use a 16-foot EFTC cable and safety the cable to tie-down ring D8 using one turn of type I, 1/4-inch cotton webbing.

Figure 10-17. Extraction system installed (continued)

10-12. Installing the Release System

Position and install the M-1 release assembly according to FM 10-55-2/TO 13C7-1-5 and as shown in Figure 10-18.



(1) Position and install the M-1 release assembly on top of the load cover accordimg to FM 10-500-2/ TO 13C7-1-5 and safety tie it to convenient points on the load.

(2) Fold and tie any slack in the suspension slings.

Figure 10-18. Release system installed

10-13. Installing Provisions for Emergency Restraints

Select and install provisions for the emergency aft restraints according to the emergency aft restraint requirements table in FM 10-500-2/TO 13C7-1-5.

10-14. Placing Extraction Parachutes

Select the extraction parachute and extraction line needed using the extraction line requirements table in FM 10-500-2/TO 13C7-1. Place the extraction parachutes and extraction line on the load for installation in the aircraft.

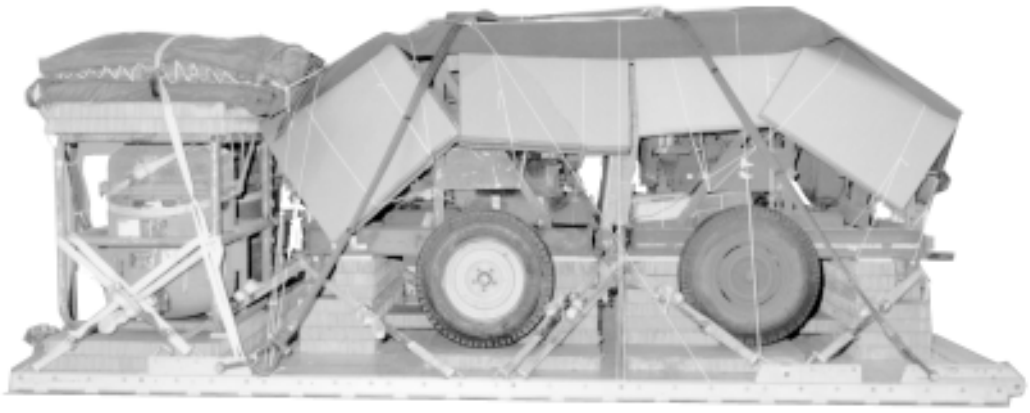
10-15. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/ TO 13C7-1-5 and as shown in Figure 10-19. Complete Shipper's Declaration for Dangerous Goods form. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

10-16. Equipment Required

Use the equipment listed in Table 10-1 to rig this load.

CAUTION
Make the final rigger inspection required by FM 10-500-2/ TO13C7-1-5 before the load leaves the rigging site.



RIGGED LOAD DATA

Weight:	7,880 pounds
Maximum Weight:	13,380 pounds
Height:	76 3/4 inches
Width:	108 inches
Length:	211 inches
Overhang: Front Rear	5 inches 17 inches
Center of Balance: (from front of platform)	100 inches

Figure 10-19. 350-GPM wheel-mounted POL pumping assembly with filter/separator rigged

Table 10-1. Equipment required for rigging the 4-inch, 350-GPM wheel-mounted POL pumping assembly with filter/separator for low-velocity airdrop an a type V platform

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal	As required
4030-00-090-5354	Clevis, suspension, 1-in (large)	7
8305-00-242-3593	Cloth, cotton duck, 60-in	As required
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5785	Coupling, airdrop, extraction force transfer with cable, 16ft	1
1670-00-360-0328	Clevis, large	2
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
5365-00-937-0147	D-ring, heavy duty, 10,000lbs	68
1670-01-183-2678	Leaf, extraction line (line bag)	2
	Line, extraction:	
1670-01-062-6313	60-ft (3-loop), type XXVI (for C130)	1
1670-01-107-7651	140-ft (3-loop), type XXVI (for C141, C5, or C17)	1
1670-00-783-5988	Link assembly, type IV	3
1670-00-753-3928	Pad, energy-dissipating (honeycomb) 3-by 36-by 96-in	20
	Parachute:	
1670-01-016-7841	Cargo: G-11B	2
1670-01-063-3716	Cargo extraction: 22-ft	1
	Platform, airdrop, type V, 16-ft	
1670-01-353-8425	Bracket assembly	1
1670-01-162-2372	Clevis assembly, type V	16
1670-01-353-8424	Extraction bracket assembly	1
1670-01-247-2389	Suspension link	4
1670-01-162-2389	Tandem link assembly (Mulipurpose link)	2

Table 10-1. Equipment required for rigging the 4-inch, 350-GPM wheel-mounted POL pumping assembly with filter/separator for low-velocity airdrop on a platform (continued)

National Stock Number	Item	Quantity
5530-00-128-4981	Plywood, 3/4-in:	
	4-by 7-in	4
	14- by 4-in	4
	4-by 20-in	2
	10-by 4-in	2
	23- by 4-in	2
	4-by 4-in	2
	4-by 16-in	2
	34-by 4-in	8
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop	
	For suspension and lifting:	
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing	4
	For deployment:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
1670-00-040-8219	Strap, parachute release	1
7510-00-266-5016	Tape, PSA, cloth back, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-ft	38
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
8305-00-082-5752	Nylon, tublar, 1/2-in	As required
8305-00-263-3591	Type VIII	As required

GLOSSARY

ACB - attitude control bar
AD - airdrop
AFB - Air Force base
AFR - Air Force regulation
AFTO - Air Force technical order
ALC - Air Logistics Center
ARNG - Army National Guard
attn - attention
c - change
CB - center of balance
d - penny
DA - Department of the Army
DC - District of Columbia
DD - Department of Defense
diam - diameter
EFTA - extraction force transfer actuator
EFTC - extraction force transfer coupling
FARE - forward area refueling equipment
ft - foot/feet
FM - field manual
gal - gallon
HMMWV - high mobility multi-purpose wheeled vehicle
HQ - headquarters
in - inch
LAPE - low-altitude parachute extraction
LAPES - low-altitude parachute extraction system
lb - pound
MAC - Military Airlift Command
MD - Maryland
NO - number
NSN - national stock number
PEFTC - extraction force transfer coupling (platform)
qty - quantity
rqr - required
SL/CS - static line/connector strap
TM - technical manual
TO - technical order
TRADOC - United States Army Training and Doctrine Command
TX - Texas
US - United States
USAR - United States Army Reserve
w - with

REFERENCES

These documents must be available to the intended users of this publication.

*AFJMAN 24-204/TM 38-250. Packaging and Materials Handling: Preparing Hazardous Materials for Military Air Shipments. 25 November 1994.

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* AFJMAN 24-204/TM 38-250 has superseded AFR 71/TM 38-250 (15 January 1988). Change 4 reflects this change. The basic manual and changes 1, 2, and 3 still reference the superseded publication. You may wish to make pen and ink changes to update the old reference citations accordingly.

**TM 10-4930-229-12&P has superseded TM 5-4930-229-12&P (07 January 1975). Change 4 reflects this change. The basic manual and changes 1, 2, and 3 still reference the superseded publication. You may wish to make pen and ink changes to update the old reference citations accordingly.

***Shipper's Declaration for Dangerous Goods has superseded DD Form 1387-2 (February 1982). Change 4 reflects this change. The basic manual and changes 1, 2, and 3 still reference the superseded publication. You may wish to make pen and ink changes to update the old reference citations accordingly.

*U.S. Government Printing Office: 1997 — 527-027/60071